DOCUMENT RESUME

ED 448 154 SP 039 683

AUTHOR Little, Judith Warren
TITLE Teachers' Professional Development in the Context of High School Reform: Findings from a Three-Year Study of Restructuring Schools.
INSTITUTION National Partnership for Excellence and Accountability in Teaching, Washington, DC.
SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE 1999-04-00
NOTE 45p.
CONTRACT RD97124001
AVAILABLE FROM For full text: http://www.ericsp.org/digests/TeachersProfDevHS.htm.
PUB TYPE Reports - Research (143)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Administrator Role; *Educational Change; Educational Environment; *Faculty Development; High Schools; Inservice Teacher Education; *Leadership; Principals; *School Restructuring; Secondary School Teachers; *Teacher Improvement; Teacher Role; Teachers
IDENTIFIERS California; *Reform Efforts; Teacher Leadership

ABSTRACT

This paper examines the demands on teachers' knowledge, attitudes, and practice associated with reforms commonly attempted in high schools and the corresponding opportunities for teacher development. Data come from a study of comprehensive school reform to illuminate the degree of fit between high school reform agendas and teachers' professional demands and opportunities. The paper examines two issues: the contribution of professional development to a school's capacity for reforms targeted at teaching and learning and how working in a reform-active environment affects teachers' practice and commitment. Section 1 examines high school traditions and reforms (the California School Restructuring Demonstration Program and the School Restructuring Study). Section 2 discusses student experience in the restructuring schools and why teacher development matters. Section 3 highlights restructured learning conditions. Section 4 presents three cases of restructuring schools, focusing on reform and professional development. Section 5 examines contributions of professional development in the context of whole school reform, highlighting: reform focus and the value attached to professional development, reform goals and the magnitude of change for individual teachers, the significance of professional community, and the role of administrator and teacher leadership. (Contains 42 references.) (SM)

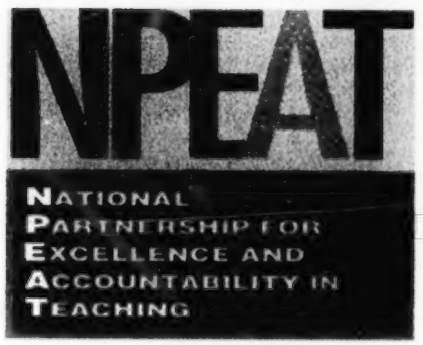
Reproductions supplied by EDRS are the best that can be made from the original document.

ED 448 154

Teachers' Professional Development in the Context of High School Reform:

Finding From a Three-Year Study of Restructuring Schools.

Judith Warren Little



U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
D.C. Rhodes
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

April 1999

DO NOT CITE WITHOUT PERMISSION OF THE AUTHORS

The National Partnership for Excellence and Accountability in Teaching (NPEAT) was a voluntary association of 29 national organizations. NPEAT engaged in collaborative, research-based action to achieve teaching excellence and raise student

SP039883

BEST COPY AVAILABLE

performance.

The opinions, conclusions, and recommendation expressed in this publications do not necessarily reflect the views or opinions of the National Partnership for Excellence and Accountability in Teaching nor those of the Office of Educational Research and Improvement, U.S. Department of Education. Neither NPEAT nor OERI endorse or warrant the information contained in the published material. Publication of this material is meant to stimulate discussion, study, and experimentation among educators. The authors were encouraged to express their judgement freely. Thus, the reader must evaluate this information in light of the unique circumstances of any particular situation and must determine independently the applicability of this information thereto.

Primary funding for NPEAT comes from the Office of Educational Research and Improvement, U.S. Department of Education under contract number RD97124001. The positions expressed here do not necessarily reflect the positions or policies of the Office of Educational Research and Improvement or the U.S. Department of Education.

Teachers' Professional Development in the Context of High School Reform:

Findings from a Three-Year Study of Restructuring Schools

Judith Warren Little

April 1999

"Not only is she teaching a subject, right, but we have the opportunity to have a class discussion, to get in depth with the subject. She's concerned about our conduct, our problems, ...whatever you might need help with that's stopping you from doing your work." [high school senior]

"Something that came up through integrative science is that a lot of us got into areas that we weren't as comfortable with. And there's not one person in this department that I would hesitate for a minute to go to and say, I need help with this. ... I think we all probably feel that way. You know, it's not just peer sharing but 'give me some ideas here, I'm stuck.'

BEST COPY AVAILABLE

Which is real supportive." [Science teacher]

Students describe in vivid detail how teachers matter. Teachers portray what it means to be part of high schools that are changing with the times. Their stories attest to the knowledge that teachers are now expected to have, and the learning demands placed on teachers by reform. Yet compared to other aspects of reform, issues of professional development have received relatively little attention.

This paper examines the demands on teachers' knowledge, attitudes, and practice associated with reforms commonly attempted in high schools and the corresponding opportunities for teacher development. It mines available data from a recently completed study of comprehensive school reform to illuminate the degree of fit between high school reform agendas and the professional demands and opportunities experienced by teachers.. In this respect, the paper grants particular attention to teacher development as a factor in the success or failure of reform and in the overall quality of high school teaching.

In effect, the paper tackles two broad questions of interest to policy makers, educators, and researchers. The two questions intertwine—they are flip sides of the same school improvement coin.

- *What contribution does professional development make to a school's capacity for reforms targeted at teaching and learning?* Long-term observers of educational innovation and school reform have argued that reform might more productively be seen as a problem of learning than as a problem of "implementation." That is, the progress of reform appears to rest in crucial ways on the capacity of teachers, both individually and collectively.[1] Little (1993) has posited that professional development adequate to the task of reform would—by comparison with traditional training models—be more oriented toward problem-solving, more dependent on sustained professional discourse among colleagues inside and outside the school, and more embedded within the ongoing structure and culture of professional work.

- *How does working in a reform-active environment affect teachers' practice and commitment? How is the reform environment organized to foster and focus teacher learning (or not)?* Advocates of comprehensive school reform anticipate that ambitious restructuring initiatives will stimulate the formation of teachers' professional community and enable a better fit between organizational structure and teacher learning. Yet a mounting body of evidence suggests certain paradoxes: reform both stimulates teacher learning and results in burnout, expands some opportunities and erodes others. Further, field studies of reforming schools suggest that pressures to specify and achieve a comprehensive whole-school reform agenda tend to drive schools toward an "implementation" perspective rather than a "learning" perspective.[2]

These questions acquire particular urgency in high schools where change has been slow and where dramatic disparities persist in student achievement and school completion rates. Our three-year study of school restructuring in elementary and secondary schools yielded a familiar tale:

> The high schools present the most disparate and fragmented pattern of student experience, and the least cause for optimism about whole-school effects. Nonetheless, more than half of our case study students experienced at least partial benefits from the restructuring resources, and these cases were broadly distributed across the three case study schools. Each school can boast of cases in which restructuring yielded important benefits to students, but each must also contend with substantial evidence that little has changed for most students. [Little & Dorph, 1998]

High School Traditions and Reform

Secondary school reforms of the past decade or more in the United States have responded to a litany of criticisms, many of them voiced by teachers as well as outside observers. In a series of studies completed in the 1980s, critics charged that the high school curriculum was superficial and fragmented, sacrificing rigor and coherence to other compelling interests—most prominently, the interest in maintaining school attendance and social order. These and other studies criticized schools for a curriculum far removed from out-of-school domains of knowledge use and production. Schools were also faulted for failures of equity and social justice, particularly those stemming from curricular tracking or streaming, for bureaucratic controls that curtailed teachers' professional discretion, and for large size that bred anonymity, indifference, and isolation. Portraits of teaching highlighted a few stellar examples of teaching against a more uniform backdrop of sterile pedagogy. [3]

During the 1980s and early 1990s, reform advocates (including groups of activist teachers) sought remedies in a broadly-defined campaign to "reinvent" or "restructure" the high school. Major reform documents and initiatives echo certain common refrains, summarized in Figure 1.

Figure 1. Recurrent Criticisms of High Schools and Common Restructuring Remedies

Criticisms of High Schools		Restructuring Remedies
Fragmented or superficial curriculum	→	Interdisciplinary, integrated, thematic curriculum "Less is more" approach to subjects
Curriculum "encapsulated" from real world contexts	→	Curriculum links to out-of-school contexts through community service or other work-based learning
Sterile traditional pedagogy, passive student roles	→	Expanded range of teaching methods, active student roles
Student anonymity and alienation	→	Shared responsibility for student success (teams) "Personalization" strategies
Narrow range of student assessment	→	Emphasis on performance-based assessment
Differentiated access to "hard content"	→	De-tracking of curriculum, heterogeneous classes
Teacher isolation from support & accountability	→	Teacher collaboration, teams, shared governance Collective review of student work

The record of high school reform has been uneven at best and discouraging at worst. To date, researchers and reform activists have sought explanations in the dominant traditions of secondary teaching, among them subject specialization; departmental conservatism and balkanization; teachers' structural independence; micropolitical disputes over school purposes and resources; organizational size; and various externalities that reinforce the status quo.[4] They have devoted significantly less attention to explanations focused on reform as a problem of knowledge use and teacher learning. Yet, as Ball and Cohen (1995, p. 1) observe, "If the reforms are to be taken seriously significant professional development will be crucial, for such teaching is neither commonplace nor natural."

The School Restructuring Demonstration Program

The California School Restructuring Demonstration Program (Senate Bill 1274)[5] encouraged schools to undertake a bold and ambitious campaign of school restructuring that would result in "powerful teaching and learning for all students." Reform advocates at the state and local level envisioned a comprehensive agenda of schoolwide change that would encompass all aspects of

BEST COPY AVAILABLE

school organization and practice: more participatory school-level decision making structures and processes; new ways of organizing teachers and students; greater depth and connectedness in the curriculum; more varied instructional methods; improved classroom- and school-level assessment practices; more extensive and well-informed use of technology; more systematic and vigorous attention to serving all students; expanded social support for students and families; better organization of teacher time for planning and professional development; and in the high schools, re-design of the 11th and 12th grade "transition" years[6].

Forty-two high schools competed successfully to serve as demonstration sites for school restructuring during the period 1992-1997. Citing problems of persistent achievement disparities and uneven student engagement, reform advocates in those schools proposed to introduce changes that correspond closely to the remedies inventoried in Figure 1.

These multiple strands of reform implicated conceptions and practices of teaching and learning. Proposals to favor depth over breadth in the subject curriculum, and to attempt more interdisciplinary connections, called on teachers to examine their conceptions of the subject disciplines and their assumptions about student learning. Teaching in heterogeneous classrooms challenged teachers' skill and comfort in teaching a very diverse student population. Proposals to join school learning more closely with workplace or service learning assumed a certain familiarity with out-of-school practices of knowledge production and use. A shift toward performance assessment required new kinds of expertise in assessing student learning. All are areas of knowledge and belief that were rendered visible, explicit, and problematic by the reform environment.

These reform emphases thus implicate teacher development in important ways. Taken singly and together, the proposed changes call into question fundamental traditions and features of the high school: its educational purposes; what knowledge is valued (and for whom); a differentiated structure of opportunity and corresponding history of differential achievement; and the ways in which student success is measured, communicated, and legitimated. They strike at the heart of what teachers, students, and communities' value in the high school. They speak both to organizational policies and practices, and to individual capacities and dispositions.

The School Restructuring Study

The School Restructuring Study (1995-1998) charted the progress of reform in schools funded by California's state-sponsored School Restructuring Demonstration Program. Of 42 high schools funded by the program, we randomly selected 12 sites for a two-tiered case study. Three of these schools were intensive case study sites, and are the primary focus of this paper. In these sites, we made repeated site visits and generated a data set encompassing: repeated interviews and observations with 34 focus students and their teachers; interviews with reform leaders and a wide array of teachers, counselors, and other staff; observations of classrooms, teacher meetings, and informal school life; surveys of students and staff; and selected school records and documents. The remaining nine schools received one-time visits from a field research team, participated in the survey of 10th and 12th graders and school teaching staff, and provided documentary materials recording their progress each year. Survey data were also collected from students and staff in comparison high schools, matched on school size and student demographic characteristics, and reported by administrators to be uninvolved in programs of schoolwide reform at the time of the survey.

The three intensive case study high schools (Figure 2) are all moderately large comprehensive high schools. At Hacienda, a suburban/rural high school designated locally as a "fundamental academic high school," restructuring took the form of lengthened instructional periods (a "block schedule") and additional graduation requirements. North Meadow, located in a relatively low income area of a small city, developed a set of special programs aimed at improving attendance and achievement of middle- and low-achieving students. Powell, an urban high school, sought more curricular focus and smaller scale through the formation of "houses." The houses were organized roughly by occupational or substantive themes—health occupations, architecture, business and

government—each enrolling a subset of the student population and staffed by an interdisciplinary group of teachers. The three schools varied in their student performance record, with urban Powell High School having the most dismal record and suburban Hacienda the strongest record of student graduation rates, test scores, attendance, and academic course-taking patterns. All three schools relied on an experienced and relatively stable teaching staff, but Powell was plagued by frequent administrative turnover.

In many respects these three schools typified the restructuring schools our research team visited throughout this study. A few made far bolder efforts than these three, and many moved more timidly. We selected the case study schools randomly, with the aim of recording the definitions and progress of state-supported school restructuring. While we would have welcomed evidence that the schools were achieving dramatic gains, we did not select them as exemplars of successful reform. Like many others, these were high schools grappling with less-than-satisfactory records of student achievement. Their claim to our attention lies not in their stellar accomplishments—on that score, their record is modest and mixed—but in the lessons they supply about the significance of teacher learning in the reform of secondary education.

Although the study was charged with tracing the definition and progress of reform in the local sites, and thus was not centered wholly on questions of teacher development, some of the data speak directly and explicitly to issues of professional development. For example, we conducted a round of interviews with administrators and teacher leaders about professional development associated with the restructuring efforts, and tracked the allocation of time and other resources for professional development activity. Selected survey items tap teachers' experiences with formal professional development activity and with more informal learning conditions associated with collegial support and relationships. Finally, albeit often indirectly, teachers revealed important dimensions of learning demands and opportunities when they explained their own ideas regarding specific reforms and when they related their experiences in reform implementation.

Three Restructuring High Schools

Hacienda High School	Suburban Hacienda High School, enrolling about 1900 students, was designated a "fundamental high school" prior to applying for the restructuring demonstration program. Under the auspices of restructuring, the school introduced requirements for a senior project and community service credits. It reorganized its instructional time into a block schedule that afforded more opportunity for students to take academic electives and reduced the number of students a teacher saw each day. Restructuring resources supported a range of teacher leadership positions, the development of a student assistance program, the purchase of computer technology, and concentrated summer planning and professional development time for teachers.
North Meadow High School	Although located in a relatively small city, North Meadow considered itself an urban high school, enrolling an ethnically and economically diverse population of nearly 1700 students. Efforts to eliminate the school's three tracks (honors, college prep, and general) met with resistance within the school and at the district level. A staff proposal to introduce a block schedule was stalled by district opposition. The school's restructuring strategy therefore centered on developing a series of small special-purpose programs, including career academies, designed to boost overall student achievement and attendance.

Powell High School	Powell High School is an urban school whose approximately 1600 students come from predominantly minority and low income families. Following the successful precedent of two career academies, the school restructured into a set of career- or theme-based houses and academies. In previous school improvement efforts, the school had also concentrated on integrating social and health services into the school program, and made an effort to continue this emphasis despite fluctuations in funding. SB 1274 resources were dedicated to expanded technology, teacher leadership or grant support positions, and professional development. Progress in restructuring was hindered by frequent administrative turnover.

Figure 2: Three Restructuring High Schools

Student experience in the restructuring schools—why teacher development matters

We were best able to uncover the promise and pitfalls of school restructuring when we kept our attention focused firmly on student experience and conditions of student learning. [7] We considered students to benefit from restructuring when we could observe high expectations or supports for academic achievement that were evident across the student's entire day and across our three visits, and that were in some obvious way attached to the school's restructuring strategy. To experience a "booster effect" was to experience *learning conditions* associated with high achievement. [8]

Of the 34 high school students we shadowed, 13 (39%) spent all or part of their days in classrooms or other learning situations where one could readily see restructuring choices and strategies at work in favorable ways. These were students for whom restructuring created a "booster effect," enhancing expectations and/or supports for achievement. Another 7 (25%) of the students showed evidence of a weaker or more partial benefit from specific innovations. For example, such students may have encountered new forms of assessment in just one or two classes, or increased access to new computer technology, or a change in the school schedule without widespread change in curriculum or instruction.

A small number of students (4 students, under one-tenth of the group), suffered negative consequences that were unanticipated and unintended. These cases tend to stand out because the students' stories are vivid and often poignant—the motivated student who is unable to get the courses or teachers he wants because he is trapped in an unsatisfying "house" assignment, or the low-achieving student placed in a special program, only to be frustrated by low teacher expectations and a peer group that "messes up all the time." We emphasize that the number of these cases is small, and the probability of finding similar stories in non-reforming schools is also high. At the same time, these cases also allow us to identify the challenges and pitfalls associated with teacher assignment and teacher expectations in the context of restructuring.

Finally, slightly more than one in four of these students remained virtually untouched by restructuring (10, or 27%). Although the group experiencing a booster effect includes students of varied ethnic, racial, and linguistic backgrounds, and a mix of high and low achievers, the group untouched by restructuring is far less diverse, both academically and demographically. All but two of these students are students of color; nearly all are lower achieving students; and approximately half are designated as second language learners or Limited English Proficient (LEP).

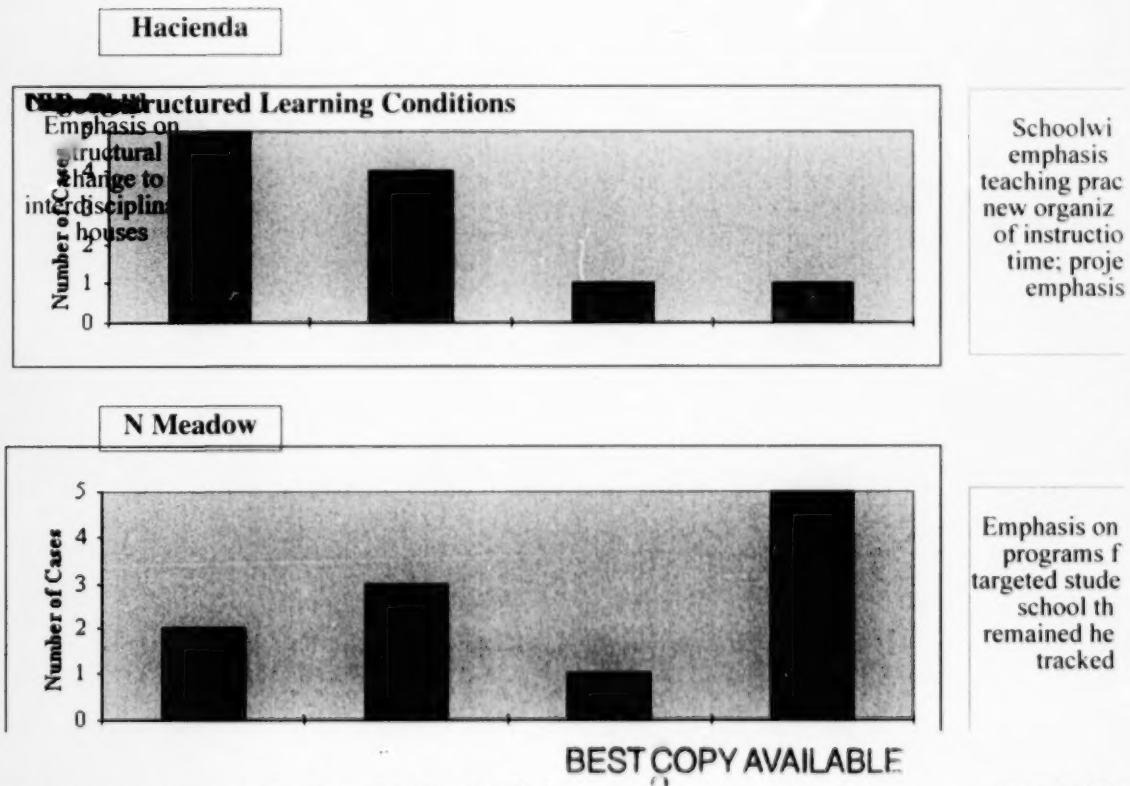
Figure 3 displays the distribution of cases within and across schools. As the figure suggests, the pattern does not lend itself to a clear distinction between successful schools and unsuccessful schools. Each individual student who benefited had counterparts within the same school who did

not. We do not purport to explain all of these student differences as functions of individual teacher development or the social organization of teachers' work under restructuring. Nonetheless, nearly every student case calls attention to some aspect of individual and collective teaching capacity, practice, and relationships.

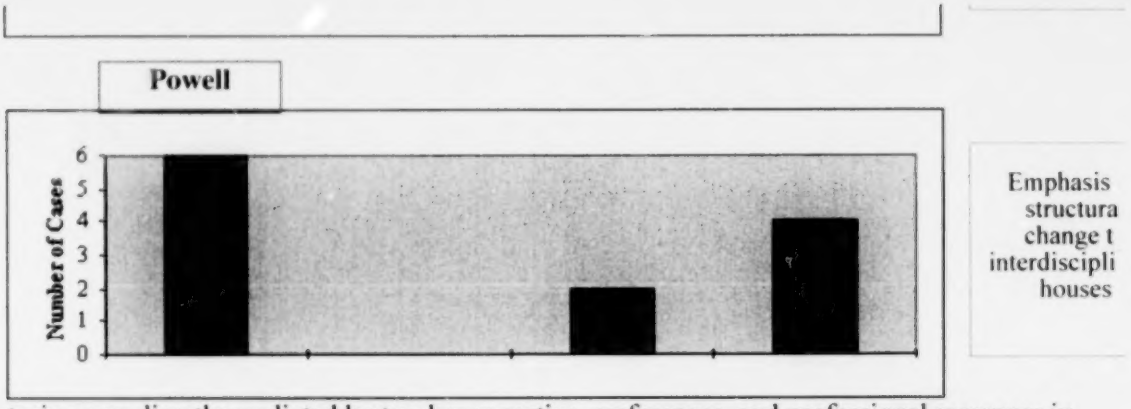
The distinctive pattern associated with each school tells a story of the school's restructuring choices and the significance of those choices for teachers and teaching. The next section elaborates those choices in more detail, but in brief: Hacienda's distribution reflects a schoolwide focus on teaching practice, accompanied by a shift in the use of instructional time to permit greater instructional variety; North Meadow's distribution shows both the promise and the pitfalls of relying on small programs and individual teacher innovation in a school where expectations for student performance are powerfully shaped by tracking; and finally, Powell's profile reflects the disparities in conditions of teaching across the school's two established career academies and three new theme-based houses. Taken together, these individual student profiles—combined with student surveys and the many additional conversations and observations we completed with students over two years—establish the basis of our interest in teacher development in the context of high school reform. In particular, the students brought home to us how teachers matter.

Students experienced restructuring first and foremost through individual teachers. At the level of the classroom, the face of reform was the face of the teacher. On a day-by-day basis, students' experiences of restructuring were shaped in large part by their interactions with individual teachers and other adults. Students' experience of

Figure 3
Student Experience of "Restructured Learning Conditions":
Distribution of Focus Students by School



BEST COPY AVAILABLE



restructuring was directly mediated by teacher expertise, preferences, and professional resources in ways that remained largely unexamined or acknowledged publicly.

Quality of teaching mattered more than new models, programs, and structures.
Restructuring was most readily visible in a lengthy inventory of new programs, curricula, time schedules, instructional arrangements, assessment methods, and governance committees. These structural and programmatic changes reflected well-founded insights regarding the impediments to good teaching. Yet throughout the study, we were struck forcefully and continuously by the interactions we witnessed between students and their teachers, and by the ways in which those interactions fostered or dampened student effort. Structural changes acquired significance for students only to the extent that they demonstrably enhanced the learning climate of the classroom and school and intensified the support available to students from teachers, fellow students, and other adults. Some structural changes enabled teachers to know students better and teach them more successfully. However, new programs or instructional arrangements did not produce effects independent of what the teachers themselves had the knowledge, skill, resources, and disposition to do.[10] [11]

We concluded that the quality of teaching and the student-teacher relationship matter most to what *schools* can achieve with students. This is not to say that teachers constitute the single most powerful influence in the lives of children and adolescents, but rather that the quality of teaching is the most crucial foundation of achievement that is under the control of the school.

If reform is indeed a problem of learning rather than mere organizational readjustments, we would anticipate that the progress of reform would be influenced by individual and collective capacity, where capacity is seen in technical, social, moral and political terms.[12] Judging from teachers' own accounts and from their observed interactions with their students and colleagues, they interpreted the school's reform agenda with different capacities, dispositions, and professional resources. One issue here is the fit between reform agendas and individual knowledge, skill, and attitude: to what extent did each school take account of the histories, conceptions, and professional affiliations that individuals brought to the reform effort? how did the school's reform strategies capitalize on individual strengths or compensate for individual weaknesses? A second issue is the fit between the school's reform aspirations and the collective capacity and orientation of the school's staff. In what ways do teachers' professional affiliations, both formal and informal, constitute resources or constraints for school reform? How did the school's approach to reform serve to strengthen or erode professional community among teachers?

The combination of knowledge and belief, experience and preference, and relationships inside and outside the school formed the basis on which individuals and groups interpreted the broad restructuring goals and gave shape to the specific restructuring choices in each school. On the whole, the existing configuration of teacher knowledge and attitude, and the learning demands associated with reform proposals, went unremarked in the initial proposals but surfaced in teachers' interactions with one another, with their students, and with members of the research team.

BEST COPY AVAILABLE

Reform and Professional Development: Three Cases

Definitions of restructuring in the three schools differed in two important ways. First, the schools differed in the degree to which reform goals and strategies directly targeted teaching and learning (as distinct from new structures and programs), and thus had immediate implications for professional knowledge and professional development. Second, the schools varied in the degree to which they sought the attention and involvement of all teachers versus a selection of interested innovators. In these ways, the three schools were differently positioned to view professional development as central to the success of reform, and to pursue a professional development strategy that could engage all staff.

The profiles that follow assess the closeness of fit between each school's reform agenda and its professional development strategy. These profiles combine an overview of restructuring progress and conditions in each school with a specific focus on English and math teachers and their departments. To some extent, narrowing the subject focus to math and English under-estimates important resources or obstacles for school reform located outside these two groups (for example, the science department was a strong promoter of curricular innovation at Hacienda). However, our research team argued that restructuring was unlikely to make a lasting difference if conditions of teaching and learning remained untouched in these two crucial areas. Math and English are crucial to the significance of a reform effort because they are gatekeeping subjects, controlling student access to various postsecondary options. Assessments in math and English form the basis on which the success of school reform is most frequently and quickly judged in policy and public forums. Finally, these two subjects provide useful potential contrast cases in their response to reforms targeted at teaching and learning. In previous studies, math and English teachers have typically been found to differ in the degree to which they see their respective subjects as open to new curricular and instructional approaches.[13]

Hacienda High School

Hacienda High School

- Reform concept focused on teachers' instructional practice and teacher-student relationships; implications for all teachers
- Staff development "woven through" the five-year reform. Seen as avenue to "buy-in" and as motivation for individual change
- Schoolwide staff development activity focused on general instructional and assessment practices consistent with reform goals
- Whole-staff summer institutes focused on instructional variety in 90-minute class blocks; use of rubrics for student assessment

- No consistent strategy for linking school-level activity with teacher development within subject areas

- Conservative departments in English and math, with high individual autonomy

Teaching practice and the teacher-student relationship occupied the center of Hacienda's publicly avowed reform vision. No doubt such rhetoric is common. Proposals and other reform documents are, after all, the public and official face of school improvement. Nonetheless, the Hacienda documents and our interviews with reform leaders stood out from the others. The emphasis on teachers and teaching was heightened by the school's practice of polling student views through survey, interviews, and whole-school forums. The students' insistence that teachers matter at the level of the individual classroom made it harder to dismiss the focus on teaching as merely reform rhetoric.

Reform leaders at Hacienda viewed the capacity for reform as linked directly to teacher knowledge and confidence. According to the principal, Hacienda is "a school that has a history of an interest in staff development." (Fall 1995, p. 1). Authors of the restructuring proposal portrayed professional development as a consistent thread to be "woven throughout" all reform activity.

> Although professional growth is named last in the redesign components, it is so critical to the success of all the elements that we have woven it throughout, a reflection of the students' recognition [in survey, interviews, and retreat] of the centrality of the teaching act. (School Restructuring Proposal, p. 8)

The school pursued a two-pronged strategy. Whole-staff activities were designed to build unity and stimulate or assist individual change. Some operated as forums for discussion and debate regarding reform goals and strategies; it was through this process that the school garnered widespread support for its new instructional schedule (90 minute class periods) and additional graduation requirements. Other activities focused on aspects of teaching practice, typically by offering teachers an opportunity to share ideas with one another. The school's principal and restructuring coordinator (a teacher) both viewed these whole-staff activities as central to the school's reform progress, and took particular pride in the school's summer institutes. Staff offered mixed reviews of the whole-staff summer institute activities ("some...have been really useful and some ...have sucked") , but were generally appreciative of the school's investment in professional development. An English teacher commented: "We have welcomed the restructuring funds that have brought us inservice, especially to work with the block schedule."

Corresponding to the whole-staff activities was an effort to supply individual teachers with encouragement to innovate and with easy access to discretionary resources. The school established a process for awarding technology mini-grants to teachers who were interested in integrating computer technology more fully into their classroom instruction. In a more conventional fashion, it also offered subsidies for conference attendance and stipends for summer time devoted to curriculum development. Teachers commented about the relative ease of access to professional development resources outside the school:

> So I mean as far as professional growth [in my previous school], there wasn't any professional growth. I mean there wasn't any at all. At all. And then I came here, and not only are there opportunities, there's a—they're filling out stuff for you, showing you where to go, taking care of the details. I mean, it is easy for professional growth here. It really is. [Math teacher, F96]

The school's fundamental conception of reform rested on whole-staff acceptance of reform goals backed by the capacity and will of individual teachers. In principle, an encouraging climate and easy access to resources provide both an incentive to change and the possibility for professional activities more closely tailored to teaching assignments. In practice, this stance produced a pattern

that was little different from most non-restructuring schools—some teachers were professional development activists, some were occasional participants, while still others rarely engaged in any activity that could reasonably come under the heading of professional growth.

In seeking professional unity at the whole-staff level and in subsidizing individual learning and innovation, the school paid little attention to the ways in which the school's formal and informal constellations of teachers might constitute a resource or obstacle for the school's reform agenda. In particular, the school granted subject departments no explicit place in its reform theory of action or in its strategy for professional development. This is not to say that departments never secured resources to attend conferences or organize department planning days (they did), but that subject departments bore little collective responsibility for the progress of the reform and found themselves in competition with whole-staff activities for time and other resources. Math department members describe an occasion on which they had to forego training on expanded uses of problem solving in their math classes to attend a whole-staff activity at the beginning of the school year. A teacher comments: "[Whole-staff activities] can be real good but sometimes you are just 'there' and I would rather spend more time with the department and focusing in our subject area."

Hacienda's math and English departments were weakly organized at the outset to assert reform leadership or to act collectively in interpreting the schoolwide focus on improved teaching practice. The math department members continued to see themselves as a congenial and cooperative group, but innovating teachers could make no special claim on departmental discussion or decisions (even when students seem to benefit from their efforts). Teachers pointed to a single occasion in the past when teachers acted collectively to help them cope with a new state-mandated course by holding weekly meetings to coordinate curriculum planning. Once course content and course materials had been established, the meetings were abandoned. Professional development remained the prerogative of individuals. Explaining why the department members have not participated actively in math-related professional activities, the chair says:

> One of the problems has been that [Cal Math Project] involves a [commitment in the] summer and those younger teachers have to have a job during the summer and those who are older travel during the summer.

The English department was variously described as "seriously divided" or as "amiably split" on the matter of curriculum priorities and instructional approaches to grammar teaching. However, the department was also home to several teachers who aligned themselves closely with the reform agenda and who saw restructuring as an opportunity to urge more widespread innovation. The chair reports that the department has reached a collective agreement to participate in the California Literature Project, and points to increased participation in professional activity as a product of restructuring:

> We have a nucleus of some very conservative people who now wait for the [regional English teachers' association] conference because of the wonderful collegial interaction we have, and the useful new ideas that they have gotten. And it wasn't possible to get them to go in past years. They would not go. So I don't know exactly how it happened, but I think it was the pressure of restructuring, you had to change. There was no possible way to go on as you had been. So people stepped out to do something they normally did not do before.

The English department—or at least some of its members—also see the department as having some part to play in schoolwide capacity to support reading and writing—especially in light of a block schedule that may disrupt the continuity in student course-taking in English. In effect, the English department has become more dependent on teachers of other subjects to support students' growth in reading and writing:

> We had an inservice for all teachers in reciprocal teaching, and many have taken it up in classrooms other than English, to be actually reading skill oriented rather than just content knowledge. So that's helpful. Also, we have had teachers other than English teachers, for two years now, evaluating the senior project research papers, so that they would become more confident of their ability to apply criteria in their judgments. And then, this year, at the district level, we have clear rubrics for all kinds

> of writing, for all different strands of writing, and those were given to teachers in all different departments, with ideas of how different kinds of writing might be relevant to their area at the beginning of this year. So they would have more idea of how they might use writing without distorting their curriculum, and how they might evaluate it, with rubrics.

Figure 4 summarizes Hacienda's whole-school reform orientation and professional development strategy in relation to the level of professional community and reform orientation in its math and English departments. Of the three high schools, Hacienda boasts the strongest focus on teaching practice and the clearest conception that teacher knowledge and professional development provide a necessary foundation for reform. Nearly 90% of the school's teachers subscribe to the school's reform goals, and teachers consistently characterized the staff as "open to change." Yet both the English and math departments preserve strong norms of individual autonomy and relatively passive practices of department leadership. Overall, it appears that Hacienda's relatively strong focus on teaching practice and its strong commitment to professional development are weakened by a stance of passive individualism (participate if you wish) and by overlooking the potential of subject departments to operate as resources or constraints in the pursuit of whole-school reform. All in all, the spirit of broadly permissive encouragement enables quite different conceptions of the meaning of restructuring close to the classroom, and quite different investments in the improvement of classroom practice.

Figure 4

Whole-School Reform Goals, Professional Development, and Department Orientations
Hacienda High School

Reform Starting Point

- Designation within local community as "fundamental academic high school"
- State award as distinguished school, but evidence that student success highly uneven
- Staff self-concept: "open to change"

Reform "Theory of Action"

- Teaching practice and attitude matter most, and reform is dependent on teacher knowledge. Implications for all teachers.
- Block schedule will permit more engaging and effective practice (can't target attitude directly).
- Whole-school staff development will lead to instructional change in the classroom.
- Innovation will spread by supporting individual experimentation (e.g., technology mini-grants)

Professional Development Strategy

- Staff development "woven throught" the five-year reform. Seen as avenue to "buy-i and as motivation for individual change
- Whole-school forums for discussion of proposed innovations (block schedule, senio project)
- Schoolwide staff development activity focused on general instructional and assessm practices consistent with reform goals. Summer institutes.
- Support for individual innovation. Technology mini-grants; resources for release tim travel, conference attendance.
- Whole-staff inservice takes precedence in cases of time conflict with individual or department-specific inservice

Department orientation

Math Department

- Conservative department with high autonomy regarding teaching and professional dev't
- Brief experiment with new curriculum seen as effective with students, but abandoned because some teachers not interested
- Math professional development sometimes subordinated to whole-school activity

English Department

- Department "fairly conservative" and split over some curriculum priorities
- Chair urges participation in Cal Lit Project, but involvement in reform and professional development a matter of individual preferen
- Promoting reading and writing across the curriculum, but some turf-guarding

Department leadership

- Chair: Laissez-faire stance toward teachers' involvement in reform and professional development
- Change initiative possible, but constrained by individual autonomy
- Department not viewed as leader within school. Principal's view: "We need to grow in math"

Chair: Balancing act between conservatives and "forward-moving people," promotes participation in professional development

- Department members influential but with some school tensions over English department "control"

Case of a strong schoolwide focus on teaching, with change resting on individual teacher capacity and will—weak professional community an professional development at the department level

North Meadow High School

North Meadow High School

BEST COPY AVAILABLE

- Reform concept focused on small-scale innovation, pilot programs; implications for classroom practice of self-selected innovators
- Staff development seen as avenue to "buy-in" and as motivation for individual or department change
- Bi-monthly "delayed start" days provided time for whole-staff activities or department-level discussions
- Staff development resources made available to individuals or departments who initiated requests
- One strong department-level example of professional development contributions to reform
- No consistent school-level strategy for linking school-level activity with teacher development within subject areas

North Meadow High School conceived of its reform goals as developing special purpose programs or classroom innovations that would remedy achievement disparities by intensifying support for some groups of students. In doing so, the school adopted a basic school restructuring strategy that only indirectly targeted teaching and learning and that invited teacher change and growth largely on the basis of individual interest.

Indeed, the school relied exclusively on teacher initiative at the classroom level and in the context of small, special purpose teams and programs. In the principal's words, "My job is to hire good teachers and let them do stuff." Larger-scale initiatives with more profound and direct consequences for teaching practice and teachers' roles have foundered. The school's three curriculum tracks (honors, college prep, and general) had the support of a substantial number of staff, including most of the English department, leaving advocates of de-tracking isolated. A block schedule proposal crafted by the staff with widespread support was stalled at the district level.

In this context, monthly whole-staff activities mainly served the purpose of stimulating higher levels of classroom effort on the part of individual teachers. Toward this end, the restructuring coordinator organized occasional whole-staff activities corresponding to the statewide restructuring goals (responding to diversity, building capacity for student assessment, pursuing whole-school change), but the school's strategy for achieving those goals—small-scale program innovation—offered only weak impetus for whole-school change in teaching practice.

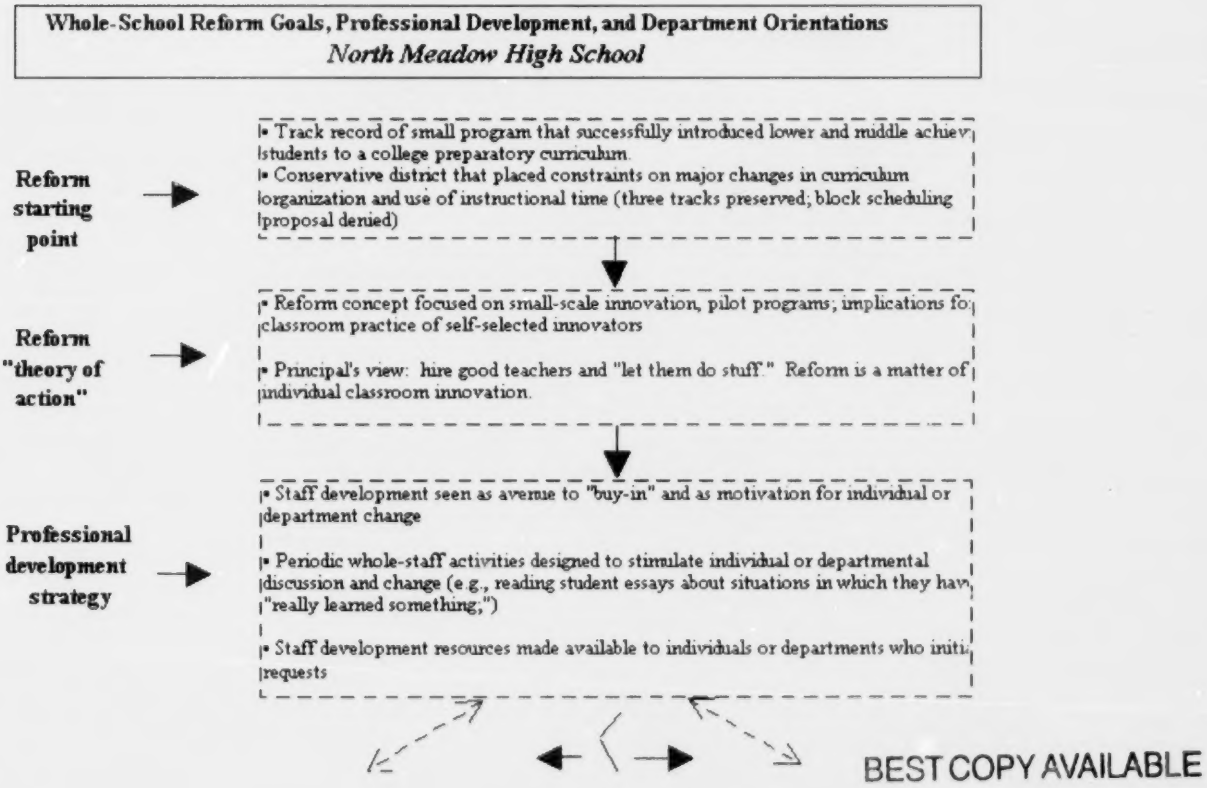
North Meadow's relatively weak reform vision and weak focus on teaching practice operated in the presence of strong departmental cultures in math and English. However, these cultures did not operate to make a weak vision stronger. Rather, the departments held oppositional views about reform priorities, and constituted very different types of strong professional community. The English department viewed restructuring—and especially the proposed block schedule— as an opportunity to add basic or remedial courses and to restrict access to mainstream or college prep English courses to those students they believed satisfied a high threshold of reading and writing mastery. Ironically, they make no mention of investments in professional development, even in areas that the department identifies as most pressing. For example, the English department chair believes they have little to

offer low-achieving students by way of help in reading because "the reading specialist left and there's no one here that knows what she knows." The math department, in contrast, corresponded to what McLaughlin and Talbert (in press) would term a "teacher learning community." Its reform priority was to open up access to college preparatory mathematics to more students. The department drew heavily on the school's discretionary professional development resources to deepen teachers' preparation in new versions of the high school math curriculum and alternative methods of mathematics teaching.

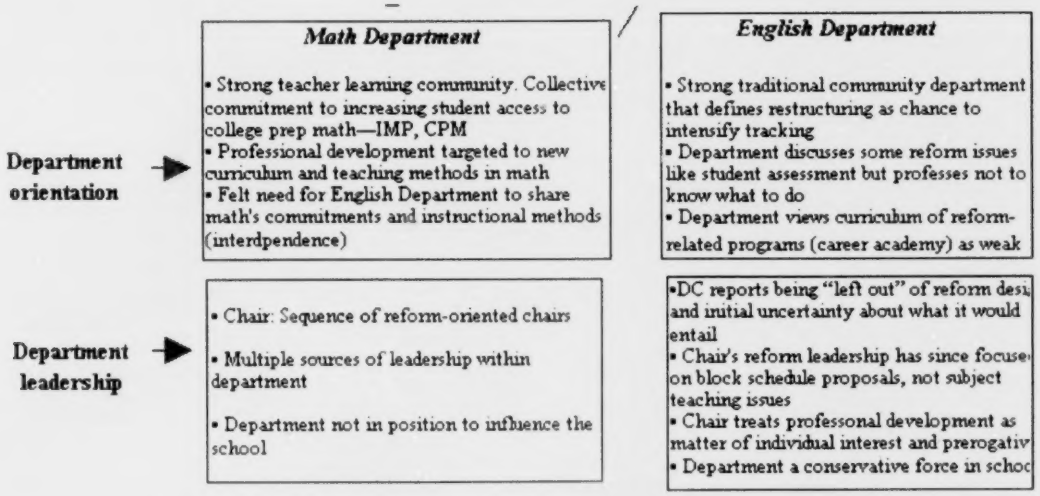
In its math department, North Meadow affords us the strongest example of the way that a strong teacher learning community can join a schoolwide reform agenda to new possibilities for teaching and learning at the level of the subject curriculum and the classroom experience. However, the department's experience was largely idiosyncratic and its influence greatly circumscribed. Its views regarding access to the academic curriculum were not shared by the English department, yet it was dependent on that department to help students satisfy the increased literacy demands in the math curriculum (reading, writing, and oral presentation). Although the restructuring coordinator noted that math was more open to change than the English department, she also believed that a purpose of restructuring was to "move away from departments." The principal, too, placed greatest emphasis on fostering cross-department interaction. Finally, the math department was unable to count on strong reinforcement in a conservative district where it was seen as the most radical of the high school math departments.

Figure 5 summarizes the North Meadow case, indicating the dominant role played by two strong departments in giving specific meaning to a relatively amorphous or weakly stated reform agenda.

Figure 5


Whole-School Reform Goals, Professional Development, and Department Orientations
North Meadow High School
Reform starting point
• Track record of small program that successfully introduced lower and middle achiev
students to a college preparatory curriculum.
• Conservative district that placed constraints on major changes in curriculum
organization and use of instructional time (three tracks preserved; block scheduling
proposal denied)
Reform "theory of action"
• Reform concept focused on small-scale innovation, pilot programs; implications fo
classroom practice of self-selected innovators
• Principal's view: hire good teachers and "let them do stuff." Reform is a matter of
individual classroom innovation.
Professional development strategy
• Staff development seen as avenue to "buy-in" and as motivation for individual or
department change
• Periodic whole-staff activities designed to stimulate individual or departmental
discussion and change (e.g., reading student essays about situations in which they hav
"really learned something;")
• Staff development resources made available to individuals or departments who initi
requests

BEST COPY AVAILABLE


Math Department
English Department
Department orientation
• Strong teacher learning community. Collective commitment to increasing student access to college prep math—IMP, CPM
• Professional development targeted to new curriculum and teaching methods in math
• Felt need for English Department to share math's commitments and instructional methods (interdpendence)
• Strong traditional community department that defines restructuring as chance to intensify tracking
• Department discusses some reform issues like student assessment but professes not to know what to do
• Department views curriculum of reform-related programs (career academy) as weak
Department leadership
• Chair: Sequence of reform-oriented chairs
• Multiple sources of leadership within department
• Department not in position to influence the school
•DC reports being "left out" of reform desi and initial uncertainty about what it would entail
• Chair's reform leadership has since focuse on block schedule proposals, not subject teaching issues
• Chair treats professional development as matter of individual interest and prerogativ
• Department a conservative force in schoc

Case of a weak schoolwide focus on teaching in the presence of strong professional community at the department level, and isolation of

BEST COPY AVAILABLE

innovating department

Powell High School

Powell High School

- Record of weak student performance gives some sense of urgency to change
- Building on precedent of effective school-within-a-school (career academy) to introduce school-wide structural change; implications for all teachers
- Schoolwide staff development took form of training in selected instructional approaches (e.g. cooperative learning), disconnected from teacher priorities.
- Widespread perception that professional development support was weak
- Strong perceptions of teacher isolation or staff division, exacerbated in year 4 by labor troubles
- High administrative turnover meant absence of continuity, lack of school level view of professional development

Powell's reform trajectory pre-dated the state's restructuring program. Building on the precedent of its own school-within-a-school experiments, the school placed its restructuring bets on a school-wide shift to theme-based houses and career academies. Teachers who advocated the change cited its potential for affording students more curricular focus and a more personalized environment.

In principle, the new structures would affect all teachers—giving them shared responsibility for a group of students and calling upon them to reconfigure their curriculum, employ more varied instructional methods, and establish closer relationships with students. It would also call on teachers to work closely with colleagues from other subjects.

From the perspective of teacher development, Powell's reform story is the most difficult of the three to assess. Several refrains echo throughout interviews and observed exchanges among teachers. By the third year of restructuring (1995-96), most teachers believed little had changed at the level of teaching and learning. Further, most were discouraged about the prospects.

> There's always been a core group of teachers who push for restructuring and many of the rest of us have gone along with, we've bought into it. And to varying degrees I think we're dropping out of it, I think. [English teacher, F95]

Teachers attributed their meager progress first and foremost to problems of leadership—constant administrative turnover, and hostility between segments of the staff and the current principal. They added to their leadership woes a litany of complaints about one another: teachers charged one another with competing unfairly for the "good students," or with failing to respond to student needs. In interviews, if not in more public forums, they cast aspersions on one another's competence and commitment. For many, making more progress toward restructuring would entail getting rid of the principal and some sizable segment of their colleagues.

Although issues of teacher knowledge, confidence, belief, and classroom practice abounded in teachers' talk, virtually no one mentioned any form of professional development as an avenue for making progress. Their propensity to locate both problems and solutions elsewhere may have had something to do with their disappointment in whole-school staff development. On the whole, teachers judged the quality, availability, and appropriateness of formal professional development to be weak. Unlike Hacienda, where professional development was "woven throughout," and where whole-staff activities helped to rally support for the school's goals, professional development at Powell appears to have been a narrowly-defined, front-end effort to inspire more widespread use of small group instruction. Asked about the contributions of professional development in the school's restructuring effort, nearly everyone comes up with the same single event: a workshop on cooperative learning in the first year of the grant.

> Summer before last (first year of restructuring) we had, we focused on cooperative learning techniques. I've done that before, the cooperative stuff, years ago. ... And I'm still not sure how that adds to their success. If you're sitting in a group and nobody knows anything, how's anybody going help anybody else? ...They paid a substantial amount of money to do this training. I'm not sure if all teachers have really bought into it. I said I have some reservations and of course, it's not the cure all. That's the problem. If you've spent a lot of money on something, as if it is the cure all, and it's not, then you have teachers questioning. [English teacher]

> I know that money was spent on cooperative learning and they brought in experts... . I know that a lot of money was spent on that, but very few teachers use it and everybody went through it. [Principal 1995-96,F95].

Teachers describe minimal and erratic institutional support for professional development related to the schoolwide restructuring efforts. Common professional time that was built into the weekly schedule in the first two years was eliminated later. An effort to reserve scheduled inservice days for work on curriculum in the houses was abandoned when the district claimed control over the use of those days:

> We started the year blindsided by the district. We wanted to start in the restructuring mode. ...The district claimed the days for its own good purpose, which was multi-cultural diversity. Some of us asked that the focus should be on curriculum, which would answer the problems, meet the needs that were rising out of our diversity. That's as far as we got because we were given other tasks and we weren't given time. [Restructuring coordinator, F95]

If formal whole-staff activities were lacking, the informal teacher learning opportunities were little more rich or satisfying. Few teachers described any robust collegial relationships. Nor did the new structures constitute a locus of professional community and teacher learning for most. Some teachers described the house as a "comfortable" environment that benefited from shared responsibility for students. In practice, teachers rarely viewed the school's new structures as signifying change at the level of individual practice. They spoke often of the implications of a house structure for teacher assignment and curricular coordination, but were cautious about expectations for curricular or instructional change. On the one hand, the house design represented a massive shift with uncertain significance for teachers and teaching.

> Suddenly we were, the whole school was forming Houses and we would see what would happen. So there was a giant leap from a pilot project, which was positively described, but never tested. . . (Restructuring coordinator, F95) .

Had teachers been able to choose a focus for professional development activity, it seems likely they would have chosen to work on the implications of the house structure for the subject curriculum—bringing subject-specific expectations to an interdisciplinary enterprise. The English department chair worried that house-specific themes would erode commitment to uniform standards in English:

> I've raised some questions about curriculum and about curriculum driving the school, in that the curriculum really, truly belongs to the disciplines and that we are losing the sense of departments because of the houses. And the house emphasis means that each house is doing something slightly differently, but how do you get some kind of uniform, bottom line skills across houses, for students, particularly say in English? [English department chair, F95].

At the same time, the respective roles of the houses and the departments remained ambiguous. The school's restructuring coordinator (a teacher) entertained ideas regarding the relationship of the two, focusing on the negotiation of subject standards and student assessment in the context of interdisciplinary houses, but lacked control over time and other resources to act on those ideas.

Meanwhile, the math and English departments experienced the relationship to houses and to restructuring more generally in very different ways (see Figure 6). English teachers were divided across the school's various houses and academies (sometimes being placed against their wishes). In the chair's view, the department had been relegated to a "minor role" in the school. Minimal time for meeting made it hard to establish or preserve agreements about curriculum priorities or standards of student work.

> T: We haven't talked about curriculum much recently in the English department. We've made attempts in the past few years to distinguish a tenth grade curriculum or an eleventh grade curriculum and twelfth grade. Then we were supposed to go off in our [house] groups and do that. Really, I don't know if it's been that successful. So I don't know even if it's a viable way to go. I just feel some curriculum needs to be done. I don't know how it would get done.
>
> I: So what is the role of the department as a structure in the school?
>
> T: Well, really a minor role, basically distribute the supplies, order supplies, call meetings occasionally. Most of the emphasis is in the house, and ... then you have teachers sort of isolated in a sense.

Yet it is not clear that this was a strong teacher community prior to restructuring. Although the chair and one or two others speak of working together to propose department-wide expectations for students, there is little evidence that the department was prepared to act collectively on matters related to reform or professional practice. Although some department members describe close collegial relations with others, most of the interviews with English teachers convey an anomistic feel.

By contrast, the math department was able to buffer itself from the effects of the house structure by retaining control over placement of math students (classes enrolled students from several houses) and taking a strong and largely conservative stance toward the content of math courses. Both in its participation in restructuring and in professional development, math charted its own independent course ("Because you know, the math department mobilizes itself.") The department acted collectively to oppose any move toward heterogeneous classes or change in fundamental course content, while remaining more open or permissive with regard to instruction (for example, the use of small groups or more real-world applications of math.) One member of the department acknowledges, "we were seen as a dinosaur." The department participated collectively in a collaborative program of instructional support and professional development, which seems to support them in the status quo.

Neither the math nor the English department members cite any participation in professional

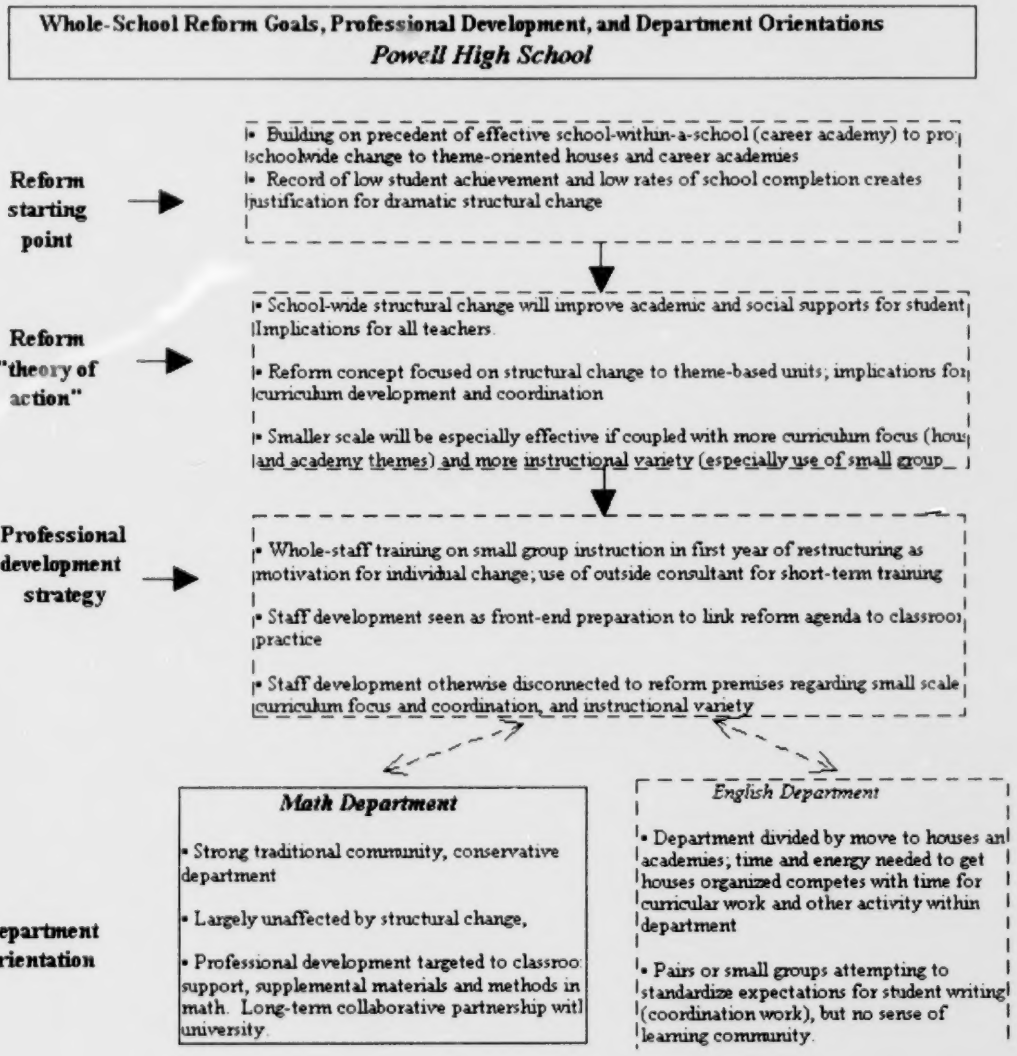
development that they link directly to the school's reform goals or strategies. Math teachers praise the combination of instructional support and professional development they have received as part of a long-term university collaboration, and distinguish that assistance from the training they have received as part of the restructuring effort:

> [The math partnership is] ongoing, with the same people. ...They know what's going on and they help us, bring some activities that would enlighten the kids, or make the class more effective. Whereas with the restructuring, we get different people, you know, we talk about different things, and it's like scattered here and there and there is no way you can connect everything, and then there's no follow-up. We just keep bringing new ideas and then after that it dies off. Then we get another one....[Math teacher, F96]

The significance of the school's massive structural change—for student learning and for teacher development—thus remains unclear. An English teacher sums up:

> Have we just changed the way we meet, in terms of meeting in departments and meeting in houses, and really not changed the way we teach?

Figure 6


Whole-School Reform Goals, Professional Development, and Department Orientations
Powell High School
Reform starting point
• Building on precedent of effective school-within-a-school (career academy) to pro schoolwide change to theme-oriented houses and career academies
• Record of low student achievement and low rates of school completion creates justification for dramatic structural change
Reform "theory of action"
• School-wide structural change will improve academic and social supports for student Implications for all teachers
• Reform concept focused on structural change to theme-based units; implications for curriculum development and coordination
• Smaller scale will be especially effective if coupled with more curriculum focus (hou and academy themes) and more instructional variety (especially use of small group
Professional development strategy
• Whole-staff training on small group instruction in first year of restructuring as motivation for individual change; use of outside consultant for short-term training
• Staff development seen as front-end preparation to link reform agenda to classroo practice
• Staff development otherwise disconnected to reform premises regarding small scale curriculum focus and coordination, and instructional variety
Department orientation
Math Department
• Strong traditional community, conservative department
• Largely unaffected by structural change,
• Professional development targeted to classroo support, supplemental materials and methods in math. Long-term collaborative partnership wit university.
English Department
• Department divided by move to houses an academies; time and energy needed to get houses organized competes with time for curricular work and other activity within department
• Pairs or small groups attempting to standardize expectations for student writing (coordination work), but no sense of learning community.

BEST COPY AVAILABLE

Department leadership	• Former chair urged departmental cooperation with restructuring on basis they would not have to change their curriculum or teaching • Current chair focuses on getting "good student: for selected programs • Department seen by others as obstacle to change; focus of resentment over competition f	• No reform role for chair • Chair speaks mostly of schoolwide staff divisions between the reform advocates and opponents, intensified by a strike; micropolitical debates over access to "good students

Case of a potential schoolwide focus on teaching compromised by weak professional development strategy and by weak or traditional professional community in departments and in new theme-based houses

Summing up the Three Cases

The three case profiles above portray different professional demands, opportunities, and challenges. Hacienda presents a case in which teaching practice is highlighted, together with a norm of being "open to change." This reform focus directly implicates all teachers' practice, but classroom change depends on individual capacity and interest. At Hacienda, reform advocates must contend with the residue of a culture that is congenial but fundamentally individualistic. North Meadow is more weakly positioned for whole-staff activity, having rather more amorphous reform goals, but it presents the strongest existence-proof of an innovating department and the uses of professional development resources to further reform in subject teaching. At North Meadow, classroom level innovations are vulnerable to teacher turnover, while an innovative department finds itself isolated within the school and the district. Reform progress is diffused and weakened by differences between a progressive math department and conservative English department, pointing up issues of interdependence that arise when groups move at an uneven pace or harbor very different assumptions about reform purposes and strategies. Finally, Powell presents the greatest structural change (a house-and-academy structure), with corresponding demands on teachers for curricular coordination but less clear implications for teacher learning. In any event, Powell shows substantially more meager teacher learning resources than the other two schools, either through access to formal inservice activity or through a supportive collegial environment. Teachers assess professional development support as weak and describe a polarized, conservative professional culture.

Contributions of Professional Development in the Context of Whole-School Reform

Taken together, the case study data illuminate the intersection of school reform and professional development in four ways:

•

Reform focus and the value attached to professional development

At issue here is the extent to which the reform focus directly targeted teaching and learning, extended its reach to all teachers, and was accompanied by a high investment in professional development.

•

Reform goals and the magnitude of change for individual teachers

At issue here is the extent to which restructuring placed new professional learning demands on individual teachers.

BEST COPY AVAILABLE

- *The significance of professional community*

At issue here is the disposition and capacity of teachers' professional community or communities, especially in relation to student learning and the investigation of teaching practice in core academic areas.

- *The role of administrator and teacher leadership*

At issue here are the leadership roles taken up by administrators and teachers in the pursuit of school reform.

The focus of reform and investment in professional development

The three schools varied in the degree to which their reform goals called attention to teacher development issues and in their attentiveness to professional development and its likely contribution to reform progress.[14] One issue here is whether reform was conceived in such a way that learning demands/professional development were likely to emerge as central. A related issue is whether the reform priorities espoused in the school's formal proposal (the basis of its funding) earned the endorsement of a large number of staff and thus, in principle, disposed teachers toward new learning.

Table 1 reports teachers' endorsement of their school's restructuring goals and their perception of the available professional development supports. In only one school (Hacienda) was the stated reform focus explicitly targeted to teaching and learning in ways that directly implicated the knowledge and practice of all teachers. In that school, we also find the most explicit and continuous commitment to school-level professional development. Of the three schools, Hacienda's teachers are most likely to report that the school "often" provides them with good professional development in support of change, and that its professional development includes follow-up support. Even here, however, teachers are not convinced that school-level professional development is necessarily a good fit with the needs of their own students. Nor do they feel much influence over the content of the whole staff activities in which they participate.

Table 1: Teachers' perspectives on formal professional development opportunity and support in three restructuring high schools

	Hacienda N= 43	North Meadow N=45	Powell N=50
The school's restructuring goals are in students' best interests (% strongly agree or agree)	88%	83%	60%
This school supports change with good professional development (% often)	49%	27%	2%
Staff development is appropriate to my students' needs (% often)	30%	18%	10%
Staff development are one-time workshops with no follow up (% often)	16%	29%	52%
I can get the resources I need for	54%	44%	10%

conferences or other activities outside the school (% often)			
Teachers have influence on the content of inservice activity (% often)	14%	13%	0%

At North Meadow, teachers are rather less likely to credit the school with providing good professional development in support of change, and even less likely to judge school level activities as responsive to their students' needs, but they're relatively confident in their ability to secure resources to pursue their independent interests. Given the school's focus on small-scale innovation, the relevance of whole-school activities was not immediately clear to most. Among the innovators, however, the ready availability of professional development resources was central to the pursuit of innovation at the classroom or department level. Teachers in the math department credit professional development with enabling them to act on their premise that new ways of teaching math would result in greater student participation and success. The department members tell the story, starting with their realization that new approaches were in order. They go on to describe the external, ongoing professional development in which they participated and the daily contact with one another ("we always have discussion over lunch").

> It's just the fact that we realized that teaching Algebra in the traditional method was not as successful as it should be and our failure rate, you know, was unsatisfactory. And so we had to look for another avenue and ...there's no reason why more of them could not be successful in Algebra if it was presented in a different way.
>
> Yeah, so we did start to work on curriculum, which is really pretty novel for Math Departments. You know, most of the time, you're just very textbook-dependent. Your course outline is the table of contents. ... That's how it was for a long time until we started first looking at Math A and then, IMP [Interactive Math Program] and CPM [College Preparatory Math]. That's carried us... those curriculum projects have carried a long way in changing how things are done.
>
> I think that restructuring has helped the math department in the sense that it's allowed us to send some teachers to train, to bring on board the new curriculums that we have.
>
> I don't think any of us would have attempted to teach IMP without going to the inservices. ... It was five days in the summer and three in January of intensive training for that program and it wasn't local... so we had to go out of town. But also, we couldn't do the program without [the training].
>
> We probably didn't know how much was needed until we were actually teaching that program because well... as you're in the midst of it, you realize how complicated it is to totally change your instructional strategies.

At Powell, we find the greatest level of disconnect between a reform agenda and professional development activity, and the greatest level of criticism by teachers regarding professional development support. Reform leaders explained the wholesale introduction of houses and academies as permitting more focus and coordination in the curriculum and a more personalized teacher-student relationship. Most teachers, however, experienced the change primarily as a structural change that intensified teachers' work with little in the way of commensurate supports or assistance.

Even in the two schools enjoying most widespread staff support for reform goals, teachers experienced school-level staff development as rarely suited to their specific teaching interests and needs, and felt themselves to be without much influence over the content of schoolwide inservice activity. The relative uniformity of those particular responses, taken together with teachers' appeals for more time with departments or other close colleagues, suggests that understanding whole school change requires looking at teachers' professional experience and professional relationships closer to the classroom.

The significance of reform for individual teacher practice, professional learning, and sense of career

It is possible to view restructuring as simply improving the organizational arrangements and resources that enable teachers to make better use of what they already know and are disposed to do. However, the facts that students' experience of teaching in restructured schools was so variable, that reform activists repeatedly described "pockets of progress," and that teachers spoke often about trying to determine the meaning and implications of expected changes, all suggest that the reform proposals more often than not signaled some kind of expected change in teacher practice. Although relatively few spoke explicitly in terms of professional learning and shifts in career experience or commitment, those who did introduce important considerations for practice and research.

Some of the data that appear most indicative of teachers' conceptions of teaching knowledge and practice—and the demands placed on practice and learning by the school's restructuring choices—are to be found in teachers' commentaries on individual students and classes, in corresponding commentaries by individual students on those teachers and classes, and in the observations of these students and teachers in classrooms. Analysis of these "linked" data is not yet complete, but the teacher interviews analyzed to date suggest three themes.

First, the reform focus was often stated so broadly and abstractly that its demands on teacher practice went unacknowledged. This was particularly the case with regard to reform goals that centered on achievement disparities and on support for low-achieving and second-language students. That is, if one were to define the challenges to *teacher* knowledge and practice by looking first at *student* experience in these schools, one would take serious account of the fact that those untouched by restructuring were disproportionately the low-achieving, minority, and English-as-a-Second-Language students. The difficulty for reform leaders or advocates, for teachers, and for researchers is to "see" the nature of the professional learning demands associated with the reform goals.

Second, teachers interpreted the restructuring foci and strategies in relation to their own values, beliefs, and practice. In doing so, they reached quite different conclusions about the nature and extent of likely changes in their practice. In some instances, they saw the proposed changes as enabling them to make better use of existing knowledge and experience. At the high school level, this was particularly apparent in the responses of some English, social studies, and science teachers to lengthened instructional periods. One of the most vivid expressions of "good fit/poor fit" responses comes not from the high school cases but from a middle school English teacher:

> I was very much supportive of the block (schedule) change. Some teachers had a real hard time with that, saying "How do we entertain them for ninety-eight minutes"? And I was going, "Oh, boy, ninety-eight minutes!"

In other instances, teachers interpreted the changes as calling for a modest degree of "tinkering," adding new classroom activities or making new efforts at curriculum coordination.

Least common—but perhaps most generative of possibilities for practice and research—are cases in which teachers interpreted reform as requiring a fundamental reconsideration of their approaches to curriculum, instruction, and assessment or a reconnection of the relationships with students and colleagues. North Meadow's math department supplies the best example of a group of teachers who viewed the restructuring environment as a good fit with their emerging values and beliefs (a commitment to opening up access in mathematics), but who also saw their next steps as requiring substantial new learning. The magnitude of change—and the corresponding professional development experiences—are well illustrated by the members of this department. One veteran teacher talks about the magnitude of the change for her:

> I wanted to say, I think I've been through a lot of growth, personal change, because this is 26 years of teaching now.... Umm... and to change... that was not any automatic overnight thing for me at all. I

> remember seeing a presentation at a conference where someone was showing student work from the very first year IMP started, two years before I got involved, and ... going... "Wow, none of my kids do this!" There was a lot of writing and explaining. That was my first... uhh... curiosity: how do you get kids to do that?! I had no idea. [Math teacher, F96]

One feature of the professional development experience was revealing gaps in her own mathematical knowledge in the context of a group of teachers all grappling together with both the mathematics content and their approach to math instruction:

> There is a unit in the second year they do that focuses on chi square. And you should have seen all of us. We all took some stat class in college, and we don't teach this. We are so uncomfortable with statistics. ... And all of us were able to, at our training - we really bonded with our group. We called it our class, that we went through our four years of training with [teachers] who were from all over the state. We all had different degrees of strength in mathematics. But we had to get comfortable with each other and really put it on the line. Hey, we don't really all know everything here. We are all going to approach these problems differently. And recognize that there is a parallel to what our kids would go through. But there were many times when we were terrified!

She goes on to compare her math teaching "before" and "after" her experience with her involvement with the Interactive Math Project:

> I: I was in your first period class. Give me a little comparison of first period today and first period before.
>
> T: I probably still would have somehow walked around the room to see if they had a piece of homework in their hand, just to check that off. But I would have been at the board showing how to do problem one, problem two, problem three. I did not before do a good job of getting kids to come up and present their ideas before I try to add to it or elaborate on it. So a common thing is, always when we are going over homework, we are asking for students to present their ideas. Even if they can just start a problem. Even if they can't finish it. Can anyone get it started for us? Where as before I always felt like, I know the one way to do it and it is more efficient, so I should show that.
>
> The other big thing that is different is that every time we go over homework - and some days lend more to this than others - is that we are always trying to see if another student did it a different way. Did anyone approach it a different way? How many different ways can we see a problem done? And I never worked on that before . If it came up, fine. But I used to always think that my job was to show the most efficient way instead of letting the kid see all the different ways you might do it.
>
> I would have done five example problems and would have given them ten to practice or something like that. Instead, because the exercises tie together more and one thing leads into something else, they have an opportunity to work on a piece of class work and talk to each other. And then again followed by some sort of group presentation, which allows me to find time to be the facilitator. Try to be the questioner. How can I go around and ask kids questions to get them started. And like this one group— "got it, we're done." No you are not. Because the next question we could ask them is can you generalize? Can you extend your thinking? Can you generalize? So the idea is, kids are never, "I'm done. I am finished." My job then becomes I need to learn how to ask my next question, or I am not doing my job. I never knew that before!
>
> ...Our curriculum didn't lend itself to that. Nor had we had any training in doing that. With IMP we get tons of training and we really talk about how we can extend. What else can you ask? If a student at this point says that they are done, what else can you help them see? ... And we had never talked about that before. In my upbringing in schools, that had never been modeled for me. I had never had a course where that was taught to me, and I had never seen a colleague do it.

The department members concur that the changes they have made were difficult but enduring: "I could never go back."

> So I think it was really different for different people and what experiences you'd had and what courses you taught before to let go of things. But then, I do know one thing in talking with our

> colleagues is that once you really do see the student work, it does like M_____'s describing... the one thing that I hear teachers say is... I can't go back.

A third theme focuses on the significance of restructuring for teachers' sense of the teaching career: career satisfactions or disappointments, and commitments to teaching. At its best, restructuring became an environment in which teachers could experience substantial career renewal. One of North Meadow's math teachers speaks of the intellectual stimulation, social bonds, and emotional satisfaction she derived from her new professional activity with math teachers both inside and outside the school. She sums up:

> I think when people get involved doing things like [the long-term involvement with other math teachers], you just get so much renewed strength as a teacher. You are excited again. I was at a point after my first ten years, kind of like, is this all there is? You know, I had every problem in the book memorized. And I loved the kids, but I wasn't finding anything for me. And you would find cute little activities now and then to do. But it wasn't anything significant for me.

How characteristic is this teacher's experience? Although the research team has not yet completed profiles of all the available teachers, it is evident that the pace and intensity of reform generated both career renewal and burnout. Reform enthusiasts recount the early days of reform activity as a period of professional stimulation, renewal, and challenge. However, we also found people vulnerable to conditions that are commonly conducive to burnout—especially work overload. Over a five year period, talk in the restructuring high schools turned more often to "burnout." High school teachers were more likely than elementary or middle school teachers to report being burned out by restructuring and more likely to say they would be likely to take a job in a more traditional school if one were offered.[15]

The significance of professional community

Research of the past decade has steadily converged on the significance of strong teacher communities for school improvement and on the relative difficulty of creating and sustaining them.[16] To an earlier body of research on teachers' professional relationships has been added new quantitative evidence linking professional community to student achievement, and new qualitative evidence distinguishing various types of strong professional community.[17] Not all strong professional communities derive their strength from a commitment to learning and an ethic of service to students. Some unite to protect traditional conceptions of practice even in the face of persistent student failure. Others succeed in questioning and challenging teaching routines when they prove ineffective with students, and in examining and inventing new conceptions of subject and teaching. Prior studies would lead us to anticipate that this latter scenario is atypical, and flies in the face of traditional norms of professional practice.

To characterize professional community in the restructuring schools, I have drawn on the conceptual framework recently developed by McLaughlin and Talbert (in press) to account for the ways in which the relative strength of professional community mediates traditional institutional patterns of teaching practice. Where strong professional community is absent, they argue, teaching practice is shaped principally by individual values and beliefs. In such an environment, teachers work independently, pressed and supported neither by the school at large nor by the department (or team) to examine their assumptions and practices. Teachers who innovate do so alone, guided by their independent initiative and relying on their own resources.[18] By contrast, strong professional communities exert collective influence on their members through their shared beliefs about teaching and through their norms for professional interaction. Where strong professional cultures prevail, teachers may tend either toward the reinforcement of traditional beliefs and practices ("traditional professional communities") or may take an open and questioning stance toward practice, with an emphasis on professional growth ("teacher learning communities"). That is, the significance of these strong professional cultures for high school reform rests in their particular orientation.

Professional community at the school level— and the task of "re-culturing"

Reform advocates in each school—especially those in teacher leadership positions—expressed a profound appreciation for the tenacity of established traditions in high school teaching. The teachers and administrators who assumed leadership roles in the reform process typically employed a common set of terms and concepts related to school change (derived mainly from the work of Michael Fullan), explicitly acknowledging the "re-culturing" challenge that must accompany the proposed changes in the school's structures and processes. They sometimes devoted schoolwide meetings to discussions of the school goals or vision, and promoted the use of student assessment and other data as a way of inquiring into the relationship between teaching practices and student learning.

The three schools presented quite different environments for the kinds of discussion, debate, and investigation that would likely be needed to challenge long-established traditions of high school teaching. Table 2 indicates the level of staff agreement with the school's espoused reform priorities and displays teachers' perceptions of the professional learning climate in each of the schools. In two of the three schools (Hacienda and North Meadow), teachers view their colleagues as open to innovation, respectful of one another, and generally both able and inclined to offer support and good advice. The third school (Powell) emerges as a comparatively more conservative, contentious, and isolating environment.
The schools' efforts to pursue whole-school reform translated into strategies that treated all teachers as individual members of an undifferentiated whole staff. None of the proposals named an explicit strategy for investigating the possibilities and constraints within specific departments or subjects; none of the schools made strategic use of department leaders. The notion of school-wide change tended to draw schools toward a strategy that combined whole-staff professional development with support for individual innovation, but that took little account of the resources or constraints supplied by within-school dynamics of professional community. Reform leaders in the three case study schools echoed the ambivalence of reform advocates elsewhere. To focus on departments

Table 2: Teachers' perception of school level reform agreement and professional community in three restructuring high schools

	Hacienda N= 43	North Meadow N=45	Powell N=50
The school's restructuring goals are in students' best interests (% strongly agree or agree)	88%	83%	60%
Restructuring has increased the conflict I experience with colleagues (% strongly agree or agree)	26%	17%	35%
Teachers listen to and respect each other (% strongly agree or agree)	86%	96%	43%
Problems are discussed openly by staff (% strongly agree or agree)	71%	60%	53%
Problems are resolved effectively by staff (% strongly agree or agree)	50%	41%	18%
Teachers continually learn and seek new ideas (% strongly agree or agree)	86%	87%	53%
Colleagues support me in trying out new ideas (% often)	61%	59%	20%

I am able to get good help or advice from colleagues at school (% often)	65%	58%	22%
Teachers involved in restructuring form a distinct & separate group as this school (% strongly agree or agree)	57%	50%	82%

struck reform advocates as succumbing to the school's traditional fragmentation or balkanization. North Meadow's principal takes satisfaction from his observation that restructuring has overcome the insularity of departments: "There's less departmental, there's less 'four walls.' It's still hard to get out of the four wall syndrome, but there's less of that than there used to be." The school's restructuring coordinator acknowledged that some developments required departmental action, but defined the success of restructuring as moving away from departments:

> We try to give the departments at least every other meeting time. And I understand we should be moving away from departmental things, which I think we've done a good job of. But at least the [learning outcomes] and things like that have to be done on a departmental level. [RC, S96]

Yet it might be argued that the school's efforts to build schoolwide endorsement of a reform agenda and schoolwide capacity to improve practice depend fundamentally on creating or sustaining teacher learning communities closer to the classroom, among teachers who share responsibility for particular students and particular subjects. All three of the schools retained a department organization, although Powell introduced a parallel structure of houses and academies. Asked to describe the school's overall reform progress, restructuring coordinators tend to take inventory by department:

> I think the Interactive Math Program is the one area where I see that as a real possibility [for de-tracking or more heterogeneous grouping]. I think our social studies is moving real close to that with all of their TCI, the Teacher's Curriculum Institute materials. I think that's a definite step forward. I don't think in English we're anywhere close. I don't think we have a clue how to do that. And if you listen to the conversations in the English department, they're going in the opposite direction. I would guess the English department is talking more niches as a way of meeting specific needs. (e.g., tech prep English).
>
> You know, our social studies department's not going to go back [to traditional teaching]. Math is not, you know, they're going to go forward, no matter what. I think we're just slowly making headway. Our probably most-in-the-dark-age department has been our foreign language department. ...We have one Spanish teacher who is doing a very modern kind of heavy into oral language and experience and then we have these three very very traditional teachers who hardly do any oral work. ... [Restructuring Coordinator, North Meadow, S96]

In these schools, as in other high schools where teachers' department and subject affiliations have been seriously investigated, the departments thus present quite different possibilities. We know that departments tend to differ dramatically even within the same school. So the question we posed here was how these two crucial departments responded to and participated in the school's reform agenda, and the extent to which they served as sites for teacher learning during the period of restructuring. The test of the reform agenda —the likelihood that the choices made at the school level would be detected in students' day-to-day experience—resided in part with the spin that departments put (or the interpretation they constructed) from broadly stated proposals.[19]

Weak and strong community in the subject departments[20]

> *If we seek to reinvent or transform secondary schooling, would we be wise to strengthen departments, or to abandon them? [Siskin & Little, 1995, p 2].*

Those who advocate high school reform have often expressed a profound ambivalence, sometimes bordering on antipathy, toward subject departments. The image created is one of a tight constellation of teachers whose subject expertise is essential to the school's educational program but whose subject-centeredness distracts from obligations to students, and whose very closeness threatens the prospects for whole-school commitments. Thus,

> ...critics charge that departments too often form bastions of curricular conservatism, enclaves of professional self-interest often at odds with (or indifferent to) the interests of students, parents, and communities. To those critics, the department model seems weakly designed to embrace and reconcile the multiple purposes—intellectual, social, vocational, and civic—pursued by secondary schools. [Siskin & Little, 1995, p. 2].

Running counter to such claims—or offering an alternative scenario—are departments that embody what McLaughlin and Talbert (in press) have termed a teacher learning community. In her study of academic departments, Leslie Siskin (1994) refers to bonded departments as those that have a high degree of inclusivity and shared commitment; to the extent that those commitments entail an open and questioning stance toward practice and an ethic of responsibility toward students, the bonded departments would constitute teacher learning communities. Rochelle Gutierrez (1996) distinguishes between math departments that are organized structurally and culturally to promote and support high levels of student success in college preparatory math. She terms such departments "Organized for Advancement," and characterizes them in a manner consistent with the notion of teacher learning communities. As Siskin and Little (1995) sum up:

> At their strongest, subject departments... afford teachers a teaching environment that is intellectually rich, socially congenial, professionally supportive, committed to the success of its students, and organizationally positioned to secure human and material resources. [Siskin & Little, 1995, p. 1]

Capsule descriptions of the six departments underscore differences both within and across schools in disposition toward and interpretation of broad reform proposals. As the individual profiles indicate, and as summarized here in Table 3, the six math and English departments range from those McLaughlin and Talbert would term "weak" communities (highly individualistic) to those embodying a strong traditional community or a teacher learning community.

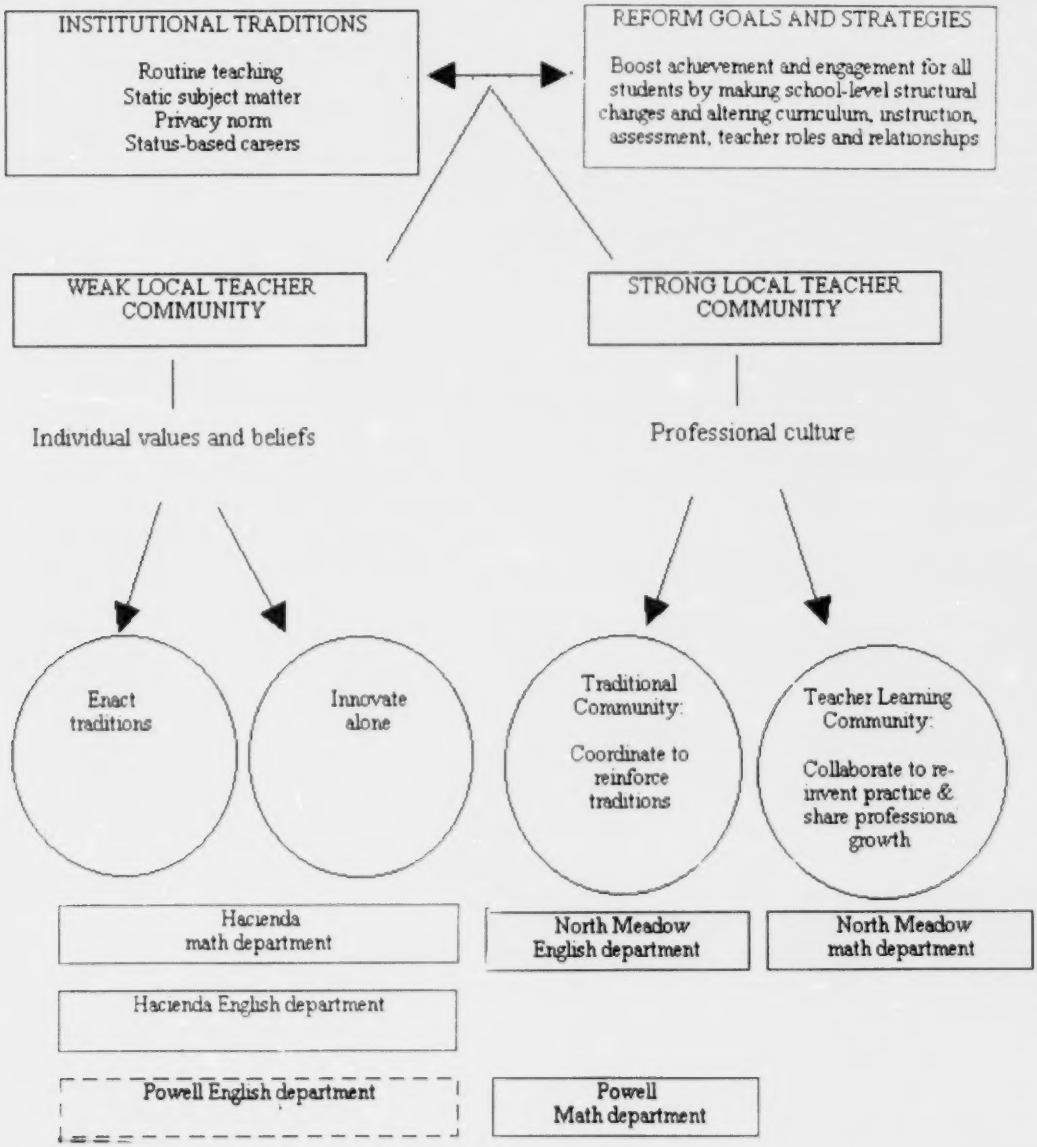
Table 3. Teacher community in the math and English departments of three restructuring high schools

Hacienda		North Meadow		Powell	
Math	***English***	***Math***	***English***	***Math***	***English***
Weak teacher community Tradition-oriented as department Individual autonomy regarding reform and professional development leaves room for lone innovators	Weak-to-moderate teacher community Developing split between conservatives and "forward-moving people" Weak collective agreement to participate in professional	Strong learning community Reform-oriented. Collective commitment to opening up student access in math, participation in professional development	Strong traditional community Tradition-oriented. Collective agreement on restricting access to college prep English. Individualistic regarding professional	Strong traditional community Tradition-oriented. Coordination of student placement, course content. Collective participation in professional development	Weak teacher community Interest in coordinating curriculum and assessment at department level disrupted by new organization

development (partial focus on change in practice)	(focus on change in practice)	development	(reinforces current practice)

Figure 7 locates each of the six departments in relation to the model of weak and strong professional community developed by McLaughlin and Talbert (in press). What

Figure 7
How Academic Departments Mediate Responses to Reform


INSTITUTIONAL TRADITIONS
Routine teaching
Static subject matter
Privacy norm
Status-based careers
REFORM GOALS AND STRATEGIES
Boost achievement and engagement for all students by making school-level structural changes and altering curriculum, instruction, assessment, teacher roles and relationships
WEAK LOCAL TEACHER COMMUNITY
STRONG LOCAL TEACHER COMMUNITY
Individual values and beliefs
Professional culture
Enact traditions
Innovate alone
Traditional Community: Coordinate to reinforce traditions
Teacher Learning Community: Collaborate to re-invent practice & share professional growth
Hacienda math department
Hacienda English department
Powell English department
North Meadow English department
Powell Math department
North Meadow math department

Adapted from M.W. McLaughlin & J.E. Talbert (in press). High school teaching in context. Chicago:

BEST COPY AVAILABLE

University of Chicago Press. The shaded segments of the modified figure (a) show the tension between institutional traditions and reform goals and strategies, and (b) locate math and English departments for three schools in relationship to the configurations of weak or strong teacher community.

should we make of this array? The history of restructuring in the three sites relies mostly on securing individual commitment ("buy-in") and supporting individual innovation. If the promise of high school reform can be satisfied by a dual strategy of rallying whole school interest and fostering individual innovation, then the present configuration leads us to be concerned mainly about issues of hiring and teacher assignment and the flow of resources to individuals. Two of the six departments would fit the problematic case anticipated by reform advocates—that is, they are strongly united and committed to traditional conceptions of teaching practice. In this scenario, the cohesive but conservative departments present an obstacle to whole school change, and the impulse is to attempt to weaken their influence. Yet such an impulse becomes less tenable in a period of escalating policy focus on subject-specific standards.

If one argues that whole school improvement and individual innovation both are anchored in subject standards, then the orientation and capacity of the departments assume greater significance. For example, North Meadow and Hacienda both turned to the departments to supply subject-specific standards for student learning or subject-specific criteria for assessing student work (for example, in senior projects or portfolios). In these instances, the schools assumed the departments to be capable of—and disposed toward—collective agreements on matters of curriculum, instruction, and assessment. In this scenario, department efficiency and cooperation would constitute resources for reform.

Finally, one might argue that the prospects for reform would be greatest where teacher learning community is both deep and broad—that is, where teachers' subject colleagues constitute a teacher learning community and where such communities extend and overlap across subjects throughout the school. On the whole, these schools were weakly positioned to rely on strong collective capacity and inclination toward reform at the level of the department. Only one department—North Meadow's math department—was strongly positioned to move collectively in ways that would help address long-standing achievement disparities by increasing participation and success rates in college preparatory mathematics. However, the contributions of that department were diminished by the countervailing force of the strong, tradition-minded English department. In this scenario, the weak collective capacity of three departments and the oppositional stance of two others constitute a dilemma. To the extent that change requires strong subject departments, it then also requires an investigation of professional learning within subject communities inside and outside the school.

Professional development in the subject areas

The School Restructuring Study provides only a partial picture of the professional development patterns within and across subject departments, but the available evidence suggests that most activity is individualistic and external. Of the six departments we examined closely (math and English departments in each of three schools), two are cases of a collective commitment to professional development that is directly linked to the school's reform agenda.

North Meadow's math department supplies the most distinct "existence proof" of the contributions that stand to be made through a combination of professional development and teacher leadership within the department. The current department ethos owes much to the influence of the former chair, who was hired several years prior to restructuring to "make some changes." This veteran

math teacher describes in detail how her various professional activities in mathematics education—especially four years of staff development with the Interactive Math Program—transformed her classroom. Although she was a math major and has taught math more than 25 years, she says: "I feel my last decade has just been learning, learning, learning. ... I am so interested now in really trying to figure out how to be a teacher. How do you do it differently?" She is able to describe in detail how her math teaching now differs from previous periods, and our classroom observations bear out her account of her present practice. Her classroom of high school seniors performs confidently and capably in areas of advanced mathematics that no one would have predicted on the basis of their earlier standardized test scores. This teacher's viewpoint and activities, far from being idiosyncratic, are mirrored in the views and activities of other department members. A norm of continuous improvement prevails; teachers underscore the value they attach to professional development and their growing comfort in discussing their own professional growth in mathematics and in math teaching.

Hacienda's English department suggests a nascent professional community, but one whose stance toward reform might tip in either direction. According to the department chair, restructuring has provided an impetus for moving the department toward instructional innovation and greater participation in professional development activities. The department has made a collective commitment to participate in activities of the California Literature Project, looking especially for guidance in the use of project-based curriculum and more varied instructional practice in the classroom. Beyond urging participation in such activities, however, the department chair and members take no action to encourage or support change at the classroom level, and the department remains divided about the most effective ways to improve student writing.

Powell's math department offers further indication that long-term, collective involvement in professional development need not be associated with change in teaching practice or in teachers' views of teaching, learning, or subject matter. For 15 years, members of Powell's math department have participated in a program of instructional support and professional development offered as part of a partnership between the district and a nearby university. As described by the math department, the program helps to expand the supply of instructional and assessment materials and provides assistance in the classroom, all within the frame of the existing math program. In a group interview, teachers had this to say:

> T: It's really good. We talk about our curriculum, we know about where everybody is at.
>
> T: They have provided people to come in and tutor and do a huge amount of necessary paperwork. ... they will prepare tests and keys.
>
> T: ....Common course outlines and common tests, at agreed upon times. I mean it's a gold mine for us, and we do appreciate it and we use it.

Math teachers attribute an increase in their college preparatory math offerings to the "gold mine" of support available through this program. "[Now] we have five advanced algebra, trig. classes, we used to have two." English teachers are less certain that the program has produced much change in math teaching or in students' access to college preparatory math. One English teacher who was intimately familiar with the program's corresponding work in English describes it as "glorified tutoring." Another complains:

> So you have [math] people who will only take kids at a certain level and we've had a lot of money accorded to the math department, through that program and through various help that they've gotten, but I don't see a significant improvement.

The kinds of professional development opportunity or obligation that might most readily join reform ambitions to classroom practice thus appears largely outside the purview of reform leaders—whether they be department heads, teachers in other leadership positions, or administrators. The next section turns to an analysis of school and department leadership in framing a conception of professional development.

Reform leadership and professional development

School leaders—both administrators and teachers—shape the school's conception of reform and the place that professional development plays in it. They convey a way of thinking about the improvement of teaching and learning. To varying degrees, they control the allocation of resources and do much to give shape to the school's professional relationships. At issue here are:

Stability and continuity in leadership. Two of the three schools had stable, supportive leadership that created an environment conducive to individual innovation. At Hacienda and North Meadow, staff viewed the principal as effective and supportive, and counted on a highly respected and knowledgeable teacher in the role of restructuring coordinator. At Powell, administrative turnover and the loss of a pivotal teacher leader took their toll.[21]

• *Leadership with a capacity to influence teaching and learning.* Even where teachers found them encouraging and supportive, school administrators and restructuring coordinators tended to adopt a "cheerleading" stance at some distance from classroom practice. Most school leaders, whether administrators, restructuring coordinators (typically teachers with a reduced teaching load), or department chairs, took a "hands off" stance toward the classroom and relied on schoolwide pronouncements, on events such as schoolwide staff development days, and on an infusion of technology or other materials to stimulate classroom-level change. Principals and restructuring coordinators were also frequently called upon to respond to concerns of staff, district, or community, thus reducing their attention to student experience and student learning.

• *Implementation of discrete innovations versus capacity building.* Nor did principals focus their leadership on the capacity of units within the school that were closer to classroom practice—whether those were subject departments, interdisciplinary teams, or schools-within-a-school. In particular, time for departments was treated as an accommodation rather than a priority. North Meadow's principal, for example, judged reform in part by evidence that the school had "transcended" departments.

The principal's role

In the two schools where we were able to observe administrative leadership over time, teachers were likely to see the principal as a source of support for restructuring (see Table 4). Yet the basic story is this: the dominant change strategies — regardless of some individual differences in the principal's role— all placed bets on individual innovators.

Hacienda's principal viewed her job as promoting, organizing, and participating in professional development linked to reform, generating a whole-staff commitment and fostering teacher leadership. However, she maintained a relatively hands-off stance toward the orientation and progress in individual departments. Even observed problems in departments did not yield in a leadership strategy focused on department capacity. For example, she expresses the view about mid-way through the restructuring period that "we need to grow in math." As the principal tells it, student dissatisfaction following the transition to a block schedule centered on the math department:

> We had our Student Forum in April, which we do annually, and the kids are concerned about math instruction, of all the areas, in terms of it being engaging. In terms of, I think, doing the same kinds of things that have traditionally been done. So if there's an area where I think we need some further help, it would be in that area.... We need to grow in math. [Principal, F95]

On the whole, this principal was the most directly and intensively involved in reform activities of the three, yet in this case she conveyed no particular strategy for stimulating discussion, experimentation, or leadership within the math department.

Table 4. Teachers' Perceptions of Principal Support in Restructuring High Schools (in percentages)

% of teachers who agree or strongly agree that the principal:	Hacienda (N=43)	North Meadow (N=45)	Powell (N=50)
Ensures adequate time and resources to try new methods of instruction	78	83	29
Communicates high expectations and standards for teaching	88	86	48
Keeps the staff focused on student learning and needs as a basis for decision making	92	64	43
Pulls his or her own weight in restructuring	97	68	40

North Meadow's principal described his role as "cheerleader, fund-raiser, public relations person, grant writer." A teacher praised his "trust in the staff" and the latitude he afforded individuals to innovate. However, nowhere did we encounter the premise that the principal should take a stand on the quality of classroom instruction or curricular priorities. Rather, he viewed school improvement as a matter of good hires and latitude for individual innovation.

> I think I have the responsibility for hiring the best people out there.
>
> You get quality people and you support them and you let them do stuff.

Powell High School suffered three changes in principal during the first four years of the restructuring process. The main story at that school is one of shifting priorities and lost continuity. The principal who had just been appointed as we began our study had been a teacher at the school at the time the restructuring proposal was crafted, and considered herself one of its main architects. Upon her return to the school following a two-year absence, she professed deep disappointment at what she terms a loss of "focus on students" and saw herself in the role of "trying to bring people back into focus." However, she offered no strategy for doing so, while her public criticisms added to the tensions among staff. As the principal acknowledged at the time, "There's a lot of animosity out there." By the end of our site visits in 1997, this principal, too, was gone.

None of the principals proposed any conception of the departments' role in reform, or proposed any strategy for working with departments or department chairs.
When administrators spoke of departments and department heads, it was often with an implied sense that they were an obstacle to whole-school reform. Figure 8 displays the dominant leadership strategy employed by principals, combining support for whole-staff "buy-in" with broad encouragement for individual innovation.

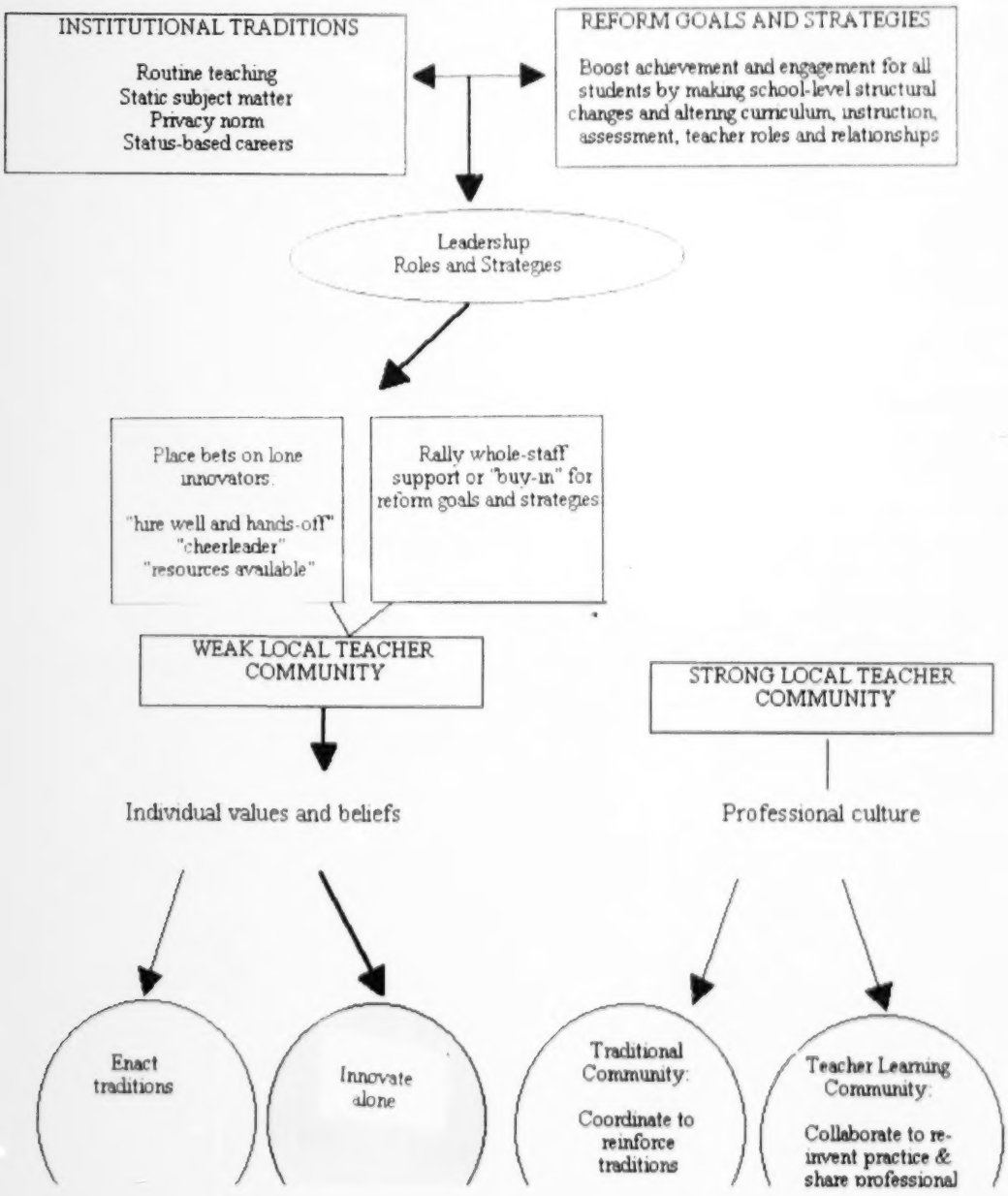
Teacher leadership

Restructuring provided both the impetus and the resources to introduce new leadership roles for teachers. Such roles—restructuring coordinator, team leader, technology coordinator, committee chair, and others—entailed new responsibilities and required new knowledge, skills, habits, and

relationships. In some respects, these teacher leaders were instrumental in pursuing restructuring, but their leadership roles lacked long-term institutional support and were most often directed toward managerial responsibilities. As we described elsewhere:

> At their best, restructuring coordinators helped create a climate and organize forums in which teachers could examine the effects of their instruction, or develop new ideas and skills. At their best, technology coordinators not only managed the acquisition of hardware and software, but also created opportunities for staff development and one-on-one assistance. At their best, assessment coordinators helped staff acquire the information and experience needed to strengthen and diversify the school's assessments of student learning. More commonly, on a day-by-day basis, these and other teacher leaders assumed responsibility for the administrative tasks of restructuring. [Little & Dorph, 1998]

Figure 8. Dominant modes of principal leadership in the restructuring high schools


INSTITUTIONAL TRADITIONS
Routine teaching
Static subject matter
Privacy norm
Status-based careers
REFORM GOALS AND STRATEGIES
Boost achievement and engagement for all students by making school-level structural changes and altering curriculum, instruction, assessment, teacher roles and relationships
Leadership
Roles and Strategies
Place bets on lone innovators.
"hire well and hands-off"
"cheerleader"
"resources available"
Rally whole-staff support or "buy-in" for reform goals and strategies
WEAK LOCAL TEACHER COMMUNITY
STRONG LOCAL TEACHER COMMUNITY
Individual values and beliefs
Professional culture
Enact traditions
Innovate alone
Traditional Community:
Coordinate to reinforce traditions
Teacher Learning Community:
Collaborate to re-invent practice & share professional

Adapted from McLaughlin & Talbert (in press). The shaded portions display the dominant strategy of school leadership in the restructuring schools.

The basic story here is that formal teacher leadership roles were ephemeral and were strategically similar to that of the principal—that is, focused on building whole staff unity and encouraging independent innovation at the level of the classroom. The reform advocates' focus on staff "buy-in" resulted in part from the history of grant funding; in two of the three schools, a small group of enthusiasts produced a successful proposal and then were confronted with the daunting task of selling it to others. As indicated in Table 2 (p. 35), teachers involved in reform were considered a "separate group" to some extent in all three schools, and especially so at Powell. A teacher sympathetic to reform at that school says:

> I hate to say this now, but that document, that proposal, came from a sort of an inner, dedicated group. ...Now, when it was announced that we had gotten it, there was great delight, but I still remember looking at the people who were dancing around and my impression was, but they didn't really involve the rest of the school in this. I mean I would have loved to have known more of what was happening, but the only way to get the job done was to forge ahead in the leadership group. They wrote it up, they got it. . . My memory is that it was to gradually spread and take over the whole school."

Nowhere in the development of teacher leadership associated with restructuring did we find an explicit strategy for seeking the involvement of department heads. Indeed, the relative invisibility of the department in the schools' restructuring strategies was underscored by new governance structures and leadership roles that were disassociated from department leadership (see Little, 1995a, 1995b).

Meanwhile, the department heads took up quite variable positions within and across schools. Of the six departments we examined closely, only one—North Meadow— provided clear and consistent evidence of a history of reform-oriented leadership. A former chair had come to the school precisely to launch some changes in math curriculum and teaching; the current chair echoed the same values and commitments. In the same school, the English department chair's reform leadership focused primarily on developing a plan for a block schedule. Had the block schedule been approved, the math and English departments would have wished to make quite different uses of it—yet there was no leadership forum in which those issues were raised.

Others have illuminated the challenges confronting department chairs in a reform context, and the pattern here is thus a familiar one.[22] Hacienda's English chair describes herself as "standing between our very conservative people and our very forward moving people."

> I like to keep them both feeling supported, that we want both things to happen, I think we do, we want to question change, but we want to change. And I have been able to do that, and I think probably that's been my most important function as we go through times of big change. The I try to be a leader in example as well. I was the first to move into technology and tried to bring other people into it. I like it myself. But also feel that we do a tremendous disservice to our students if we do not at least teach them research with technology. We must put our kids into the modern world in that way. So I've really worked hard at that-and the California Literature Project strategies, that get kids more interactive, those I think have been helpful to the department, and bringing people-getting people to go to conference.

A final aspect of teacher leadership story centers on the support for teacher initiative more generally and on the response to teachers who earn reputations as innovators. Most teachers with whom we spoke were pleased when scheduled inservice activities drew on the talents and

BEST COPY AVAILABLE

accomplishments of their own colleagues. At the same time, a certain ambivalence prevails about singling out the innovators. In a focus group conversation, a department chair at Hacienda downplays a younger teacher's inclination to see professionally recognized teachers (those who make professional development presentations around the district) as having achieved anything special:

> T: Another thing on professional growth—another thing I was impressed with my first year is there's a lot of staff members that do presentations, that do professional growth presentations around the district and they're housed here. They're part of our staff. And so there are quite a few people on staff that—I don't know if you certify or...
>
> DC: No, somebody just puts a name on a list.
>
> T: ...but it says to me, you're really good at what you do and so that was kind of neat, too, learning that there were other colleagues at your school that you could learn from. And sometimes we've had professional days, staff days, where our own staff members are leading it.

This exchange between a novice and experienced teacher raises questions about a reform strategy that places heavy weight on an ever-expanding group of lone innovators, especially where those innovators must contend with ambivalence regarding teacher leadership on matters close to the classroom.

Conclusion

The School Restructuring Study yields lessons for educators and researchers. Although the schools varied in their reform strategies, each proposed one or more major strategies that implicated aspects of teachers' knowledge and professional development. These common strategies—particularly those calling for interdisciplinary curricula, alternative forms of assessment, schoolwide governance, and heterogeneous or mixed ability classrooms—challenged both teacher knowledge and teacher autonomy.

Learning demands were intensified in these restructuring schools, but often went unacknowledged and unaddressed. Reforming high schools were more likely than previously studied "ordinary" high schools[23] to provide explicit organizational supports for teacher learning (for example, blocks of common teacher time), but reform activities in these schools were rarely

conceived as problems of learning, or as occasions for assessing existing staff expertise and disposition. In effect, the knowledge use and learning dimensions of change tended to compel less attention and fewer organizational resources than other dimensions of change Yet teachers' subsequent accounts of their restructuring experiences pointed vividly to issues of knowledge, belief, and uncertainty (Little, 1995, 1996).

Our analysis of these restructuring high schools suggests some immediate implications for educators, especially with regard to the framing of reform goals and strategies, the roles taken up by administrators and teacher leaders, and the conception of professional development. All in all, the pressure to do restructuring in these schools often displaced the time and attention needed to think about it, prepare for it, and inquire into its success. As a result, participants often defined and discussed restructuring in terms of social organization (organizing teacher teams), resources (new curriculum or technology), time (new schedules), or authority (waivers from districts or state rules). In their preoccupation with structural aspects of reform, they inadvertently drew attention away from the underlying conditions of teaching and learning that would be required to make the new structures effective.

The analysis also suggests a research agenda that picks up important aspects of teacher learning in reforming schools that remained elusive in this study. First, we have witnessed a shift from open-ended invitations to restructure and a broadly defined interest in "powerful teaching and learning" to state curriculum standards and high-stakes assessments. This shift in policy context intensifies our interest in the professional development capacity and disposition of schools and subject departments. Second, we do not have an adequate grasp of the learning demands associated with the multiple reforms encountered by teachers, or the ways in which reform expectations fit or collide with individual and collective interests, expertise, and commitments. Third, we don't have many really robust examples of teacher learning conditions. Many of the whole-staff activities, even those focused on student assessment, offered quite superficial examinations of student work. In particular, we were unable to trace the involvement of teachers in out-of-school professional activities related to the reform agenda generally or to subject teaching more specifically. What kinds of reform partners matter, and how? Most of the partners that were visible to us were reform organizations with a whole-school perspective. We have a far less complete picture of the other external sources of professional expertise and community. Finally, there is much more to be done to unpack the contributions of professional community, and the role of administrator and teacher leaders in its making and unmaking.

It has been the aim of this paper to illuminate the relationship between reform aspirations and the conditions of teacher development and support. These schools suggest more disjunctures than close ties—but also suggest some of the ways in which we stand to advance both knowledge and practice.

References

Avila de Lima, J. (1998). Improving the study of teacher collegiality. Paper presented at the annual meeting of the American Educational Research Association, San Diego.

Ball, D. L., & Cohen, D. K. (1995). Developing practice, developing practitioners: Toward a practice-based theory of professional education. A paper prepared for the National Commission on Teaching and America's Future. East Lansing: College of Education, Michigan State University.

Bowe, R., Ball, S. J., & Gold, A. (1992). Reforming education and changing schools: Case studies in policy sociology. London: Routledge.

Boyer, E. L. (1983). High school: A report on secondary education in America. New York: Harper

and Row.

Cusick, P. (1983). The egalitarian ideal and the American high school. New York: Longman.

Cusick, P. A. (1982). A study of networks among professional staffs in secondary schools. East Lansing: Institute for Research on Teaching, Michigan State University.

Dorph, R. (1997). "Systematized notions:"The construction and categorization of knowledge and assumptions about students. Paper presented at the annual meeting of the American Educational Research Association.

Elmore, R. F. (1995). Structural reform and educational practice. Educational Researcher, 24(9), 23-26

Elmore, R., Peterson, P., & McCarthey, S. J. (1996). Restructuring in the classroom: Teaching, learning, and school organization. San Francisco: Jossey-Bass.

Engestrom, Y. (1991). Non scolae sed vitae discimus: Toward overcoming the encapsulation of school learning. San Diego: Laboratory of Comparative Human Cognition, University of California, San Diego.

Gebhard, M. (1997). Second language learning in restructuring schools. Paper presented at the annual meeting of the American Educational Research Association.

Granovetter, M. S. (1973). The strength of weak ties. American Jounral of Sociology 78 (6), 1360-1380.

Grossman, P. L., & Stodolsky, S. S. (1993). Adapting to diverse learners: Teacher beliefs in context. A paper presented at the annual meeting of the American Educational Research Association, Atlanta.:

Grossman, P. L., & Stodolsky, S. S. (1994). Considerations of content and the circumstances of secondary school teaching. In L. Darling-Hammond (Eds.), Review of Research in Education (pp. 179-221). Washington, D.C.: American Educational Research Association.

Grubb, W. N. (1995). "The cunning hand, the cultured mind": Sources of support for curriculum integration. In W. N. Grubb (Eds.), Education through occupations in American high schools, Vol. I: Approaches to integrating academic and vocational education New York: Teachers College Press.

Gutierrez, R. (1996). Practices, beliefs and cultures of high school mathematics departments: understanding their influence on student advancement. Journal of Curriculum Studies 28 (5), 495-529.

Hannay, L. (1994). Secondary school change: The role of department heads. Kitchener, Ont.: OISE.

Hargreaves, A., & Macmillan, R. (1995). The balkanization of secondary school teaching. In L. S. Siskin & J. W. Little (Eds.), The subjects in question: Departmental organization and the high school New York: Teachers College Press.

Huberman, M. (1993). The model of the independent artisan in teachers' professional relations. In J. W. Little & M. W. McLaughlin (Eds.), Teachers work: Individuals, colleagues, and contexts New York: Teachers College Press.

King, M. B., & Newmann, F. M. (1999). School capacity as a goal for professional development: Mapping the terrain in low income schools. Paper presented at the annual meeting of the American Educational Research Association, Montreal.

Lee, V. E., & Smith, J. (1996). Collective responsibility for learning and its effects on gains in achievement and engagement for early secondary school students. American Journal of Education, 104(2), 103-147.

Lieberman, A. (1995). Practices that support teacher development: Transforming conceptions of professional learning. Phi Delta Kappan(April), 591-596.

Little, J. W. (1990). Conditions of professional development in secondary schools. In M. W. McLaughlin, J. Talbert, & N. Bascia (Eds.), The context of teaching in secondary schools: Teachers' realities (pp. 187-223). New York: Teachers College Press.

Little, J. W. (1995a). Contested ground: The basis of teacher leadership in restructured high schools. Elementary School Journal, 96(1), 47-63.

Little, J. W. (1995b). Subject affiliation in high schools that restructure. In L. S. Siskin & J. W. Little (Eds.), The subjects in question: Departmental organization and the high school (pp. 172-200). New York: Teachers College Press.

Little, J. W. (1996). The emotional contours and career trajectories of (disappointed) reform enthusiasts. Cambridge Journal of Education, 26(3), 345-359.

Little, J. W. (1997) The workplace conditions of teachers' professional development in 'ordinary' and 'innovating' secondary schools. Invited address to the Dutch-Flemish Educational Research Congress, Leuven, Belgium.

Little, J.W. & Dorph, R. (1998). California's School Restructuring Demonstration Program: Lessons about comprehensive school reform and its effects on students, educators, and schools. Berkeley: Graduate School of Education, University of California, Berkeley.

McLaughlin, M.W. & Talbert, J.E. (in press). High school teaching in context. Chicago: University of Chicago Press.

McNeil, L. M. (1986). Contradictions of control: School structure and school knowledge. New York: Routledge & Kegan Paul.

Muncey, D. E., & McQuillan, P. J. (1996). Reform and resistance in schools and classrooms: An ethnographic view of the Coalition of Essential Schools. New Haven: Yale University Press

Newmann, F. M. & Associates. (1996). Authentic achievement: Restructuring schools for intellectual quality. San Francisco: Jossey Bass.

Oakes, J. (1985). Keeping track: How schools structure inequality. New Haven: Yale University Press.

Oakes, J. (1992). Can tracking research inform practice? Technical, normative, and political considerations. Educational Researcher(May), 12-21.

Peterson, P. L., McCarthey, S. J., & Elmore, R. F. (1996). Learning from school restructuring. American Educational Research Journal, 33(1), 119-153.

Powell, A. G., Farrar, E., & Cohen, D. K. (1985). The shopping mall high school: Winners and losers in the educational marketplace. Boston: Houghton Mifflin.

Siskin, L. S. (1993). Hermaphroditic roles: Teacher leadership in secondary schools. A paper

presented at the meeting of the International Study Association on Teacher Thinking (ISATT): Gothenburg, Sweden.

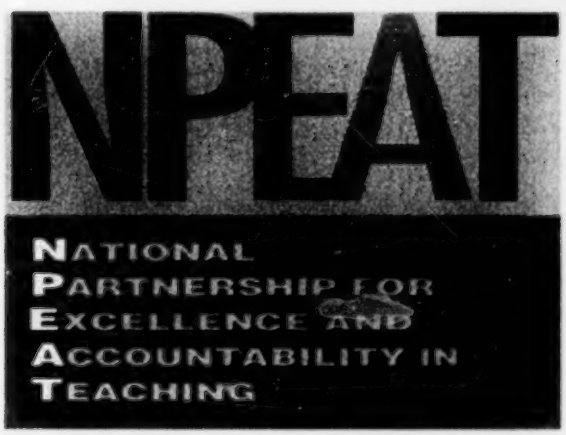
Siskin, L. S. (1994). Realms of knowledge: Academic departments in secondary schools. London: Falmer Press.

Siskin, L. S., & Little, J. W. (Ed.). (1995). The subjects in question: Departmental organization and the high school. New York: Teachers College Press.

Sizer, T. (1984). Horace's compromise: The dilemma of the American high school. Boston: Houghton Mifflin.

Talbert, J. E., & McLaughlin, M. W. (1994). Teacher professionalism in local school contexts. American Journal of Education, 102(February), 123-153.

Tyack, D., & Tobin, W. (1994). The "grammar" of schooling: Why has it been so hard to change? American Educational Research Journal, 31(3), 453-479.



University of Maryland, College Park
College of Education
College Park, MD 20742

Phone: (301) 405-2341 ♦ Fax: (301) 405-3573

BEST COPY AVAILABLE

[1] Elmore, 1996; Elmore, Peterson, & McCarthey, 1996; Lieberman, 1995; Newmann & Associates, 1996.

[2] Muncey & McQuillan, 1996; Little & Dorph, 1998.

[3] Cusick, 1983; McNeil, 1986; Oakes, 1985; Powell, Farrar & Cohen, 1985, Engestrom, 1991; Grubb, 1995; Boyer, 1983; Sizer, 1984.

[4] Bowe, Ball, & Gold, 1992; Hargreaves & Macmillan, 1995; Little, 1995a, 1995b; Muncey & McQuillan, 1996; Siskin, 1994; Tyack & Tobin, 1994.

[5] In California, educators frequently refer to state-initiated programs by the number associated with the founding legislation. Hence, the Restructuring Demonstration Program was generally termed "SB 1274" or just "1274."

[6] In this respect, and in their approach to organizational and curricular change, many of the participating high schools modeled themselves on the state's high school reform blueprint Second to None (1992). Many were also familiar with the principles of the Coalition of Essential Schools, and some were active participants in regional Coalition activities.

[7] The research design resulted in case study profiles of 34 high school students ("focus students"), completed over an 18 month period through whole-day observations, student interviews, transcript reviews, samples of student work, and interviews with each student's teachers, parents, and counselor. Focus student data were supplemented by surveys of all 10th and 12th graders, student group interviews, and a wide range of school and classroom observations. Findings related to student experience of restructuring are reported in more detail in Little & Dorph, 1998; Dorph, 1997; Gebhard, 1997.

[8] Establishing the whole-school effectiveness of restructuring was rendered difficult by the absence of comparative data on student performance across schools and across time. That is, we were unable to assess change in school-wide student performance by looking to changes in test results, course-taking patterns, attendance, or other routinely accepted measures of student outcome. Even in cases where we had such data, we faced the difficulty of trying to sort out the independent effect of SB 1274 ("restructuring") from the many other influences on a school's performance. We did, however, have considerable confidence in our inferences regarding individual case study students. Thus, we relied on these individual cases to point to the possibilities and limitations associated with school restructuring. We used the term "booster effect" to signal enhanced *learning conditions* supplied by restructuring. Our term "booster effect" refers exclusively to the learning conditions encountered by individual students under the school's restructuring plan. Were students in an environment *conducive* to learning, and was that environment the *product* of a school's restructuring choices?

[9] See also Peterson, McCarthey, & Elmore, 1996.

[10] The limits of structural change—despite persistent efforts to rely on it—is an increasingly familiar theme in studies of school reform. For related readings, see Elmore (1995); Muncey & McQuillan (1996); Peterson, P. L., McCarthey, S. J., & Elmore, R. F. (1996).

[11] We took some care not to assume that the reformers necessarily had it right. Not all teachers agreed that the reform goals in each school were in the best interests of students. Teachers who agreed about goals and about the school's problems still sometimes disagreed over strategy. Overall, high school teachers were less likely to think the school's goals were in the best interests of students—only 24% strongly agreed this was the case, compared to 35% in middle schools and 40% in elementary schools.

[12] King & Newmann (1999), investigating the contributions of professional development to school improvement in high-poverty schools, also frame the problem as a combination of individual and collective capacity.

[13] See Grossman & Stodolsky, 1993, 1994.

[14] The research team found it virtually impossible to make any assessment of a school's commitment to or conception

of professional development by looking at reported monetary expenditures. Powell High School spent several times more—17% of grant funds—in professional development categories (release time, substitutes, conference travel, consultants) than did Hacienda (6%) and North Meadow (4%), but is least well regarded by teaching staff with regard to the appropriateness, quality, and consistency in professional development.

[15] On the phenomenon of reform burnout, see Little, 1996.

[16] See Little, 1990; McLaughlin & Talbert, in press; Talbert & McLaughlin, 1994. However, for an argument that research has over-emphasized "strong ties" among teachers, see Avila de Lima, 1998. Taking his point of departure from Granovetter's (1973) notion of "the strength of weak ties," Avila de Lima argues that researchers should attend more fully to limitations of strong ties (e.g., insularity) and to the possibilities for flexibility and adaptability that reside in certain kinds of "weak ties" among colleagues.

[17] Lee & Smith, 1996; McLaughlin & Talbert, in press.

[18] This is basically the scenario described by Huberman (1993) in his analysis of the teacher as "independent artisan." In that analysis, Huberman turned to within-school groupings like departments as the most likely location of teachers' professional community. The "weak community" conception is also the dominant one in Cusick's (1982) analysis of professional ties in secondary schools.

[19] This statewide restructuring environment differs in important ways from that created by the present "standards" movement, where departments are confronted with specifically stated standards linked to subject areas. These reform proposals preserved a high degree of ambiguity.

[20] It might be argued that the strongest and most progressive instances of professional community in these schools are to be found not in departments but in the interdisciplinary teams and other groupings invented as part of the restructuring effort. Across the three schools, we have 10 instances of such interdisciplinary units, ranging from large house structures (up to 400 students) to small teams (3 teachers, 100 students). Our preliminary analysis indicates that such units have sometimes increased teachers' sense of shared responsibility for students or required greater curriculum coordination, but we have no indication that any of these units has yet generated the kind of teacher learning community posited by McLaughlin & Talbert (in press). For purposes of this paper, analysis focuses on subject departments on the grounds that public and policy expectations of school reform continue to be defined in subject terms.

[21] Principal turnover in the larger case study sample of 12 restructuring high schools was lower than turnover in a comparison set of high schools for the first four years of restructuring. However, we recorded a high surge of turnover in principals in the restructuring schools in the very last stages of the funded restructuring period, thus raising questions about the continuity of reform efforts.

[22] For example, see Hannay (1994), Siskin (1993).

[23] See Little, 1997.